DRAVIDIAN STUDIES:

SELECTED PAPERS

M. B. EMENEAU

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Of these 27 articles on Dravidian subjects, 23 deal with linguistic topics, several ranging through the Dravidian family as a whole; others concentrate on specific languages, such as Toda, Kota, Kodagu, Brahui, but all attempt to fit specific language data into the comparative study of the languages of the family. The author has realized that the comparative study of a language family depends on the firm identification of etymologies, and several of the papers concentrate on etymological study. Such general questions as India as a somewhat unified linguistic area, or the structure of personal names, or the ethnological basis of some lexical items, appear in several papers. Four of the papers are on specific Toda subjects; in three of these the approach is in the first place linguistic. These results of some 50 years of study further knowledge of the Dravidian component of India's people and culture.

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Selected Papers

BY

M.B. EMENEAU

INTRODUCTION BY

BH. KRISHNAMURTI

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To the memory of
Edward Sapir
my teacher in
modern linguistics
the inspirer of
my work on
Dravidian linguistics

PREFACE

In 1967 the Linguistics Department of Annamalai University brought out as its Publication no. 8 a collection of my papers, entitled *Dravidian Liguistics, Ethnology and Folktales*. The preface was dated 1965, but the latest item included in the volume appeared in 1958. Since that time I have published much on Dravidian linguistics. To the earlier volumes, *Kota Texts* (1944-46) and *Kolami, a Dravidian Language* (1955), there have been added the *Dravidian Etymological Dictionary* works (with the late T. Burrow, Ist edition [DED] 1961, 2nd revised edition [DEDR] 1984, *Brahui and Dravidian Compartative grammar* (1962), *Dravidian Comparative Phonology: A Sketch* (first composed in 1959, printed in 1970), *Toda Songs* (1971), *Ritual Structure and Language Structure of the Todas* (1974), *Toda Grammar and Texts* (1984). My interest in Dravidian as part of the larger Indian linguistic area was already seen in several papers included in the 1967 volume. Several later papers on the linguistic area, including Dravidian data, were joined to those earlier ones and published in 1980 by Stanford University Press under the editorship of Anwar S. Dil, and entitled *Language and Linguistic Area.*

Apart from all this, since 1958 there have been published 21 papers dealing with topics in Dravidian linguistics (one with Indian areal relevance), and 4 papers having to do with the Todas. These are gathered in the present collection, along with two chapters involving general Dravidian linguistics from *Brahui and Dravidian Comparative Grammar.* Apart from the inaccessibility of some of the papers, a better reason for reprinting is the general focusing of interest of the papers on Dravidian linguistics—even three of the four papers on Toda matters are of linguistic interest.

It will be noted that 7 of the items in the volume have to do with Brahui, and another, the first of the papers, deals with Brahui data as part of North Dravidian. This results from the facts that the excellent presentation of the language by Bray (1909, 1934) presented many problems which admitted of searching study and solution, once general Dravidian etymological work had been undertaken and brought near completion, that my interest had been aroused in the language by a short period of contact with it early in 1936 at the Chanhu-daro excavations where the diggers were mainly Brahuis, and that the Iranianization of the language, already adumbrated by Bray, was one facet of the Indian areal linguistics in which I had become generally interested.

Another 6 papers deal with features of the southern languages on which I had done extensive fieldwork in 1935-38—Toda, Kota, and Koḍagu. A seventh, the elaborate paper on 'The South Dravidian languages', starting from data from these languages, attempted to analyze in depth a part of the verb morphology of all the languages (except Tuḷu) of the South Dravidian subgroup. Another paper is a

general one on the languages of the Nilgiris, where I started my fieldwork.

A few of the other papers have a more general Dravidian scope, e.g. that entitled 'Studies in Dravidian verb stem formation' (which, among other matters, attempts to set right my unfortunate early [1945] paper on the verbs 'give' and 'come'). Areal preoccupations are seen in three papers: 'Indian pronominal demonstrative bases', 'The right hand is the ''eating hand'' ', and 'The languages of the Nilgiris' (a microarea).

Of the Toda papers, two deal with some linguistic aspects of Toda poetry, and one with the Toda basis of the name of the town Ootacamund.

My general interest in Indian personal names accounts for the paper on Coorg names and that on Kampa/Kampan; these form a unity with 'Towards an onomastics of South Asia' (*JAOS* 98.113-30 [1978]) and the treatment of Toda names in *Ritual Structure and Language Structure of the Todas* (1974).

I have already recorded (*Language and Linguistics Area*, p. 352) that, on my going to India in 1935, my teacher Edward Sapir suggested field work on unrecorded Dravidian languages, specifically on Toda; he even tentatively spoke of Dravidian comparative grammar for my future. It is fitting that during the centenary celebration of his birth I should have made this collection and that I should dedicate it to this memory. It was through his influence that they had their beginning; to him I owe much.

I should record my deep gratitude to my former student, Professor Bh. Krishnamurti, Vice-Chancellor of the University of Hyderabad, through whose efforts this volume sees the light of day. Mention should not be omitted of Motilal Banarsidass Indological Publishers for the thoroughly professional production of the volume.

Finally, there must be acknowledgement of indebtedness to the editors and publishers, holders of copyright, for their ready permission to reprint the articles in the volume. Special acknowledgment must be made as follows:

'Style and meaning in an oral literature', *Language* 42: 323-45 (1966); reprinted by permission of the Linguistic Society of America;

'Brahui *sal-/salī-* ''to stand'' ', *Pratidānam... presented to F.B.J. Kuiper*, pp. 339-41 (1968; The Hague; Mouton), and 'The right hand is the ''eating hand''', *Dimensions of Social Life in Honor of David G. Mandelbaum*, pp. 263-73 (1987; Berlin: Mouton de Gruyter); reprinted by permission of Mouton de Gruyter (Walter de Gruyter and Co.), Berlin;

'Koḍagu and Brahui development of Proto-Dravidian *r̤', *Indo-Iranian Journal* 13: 176-98 (1971) (The Hague: Mouton); reprinted by permission of Kluwer Academic Publishers, Dordrecht, The Netherlands;

'Some notes on Dravidian intensives', *Festschrift for Henry Hoenigswald...* (eds. George Cardona and Norman H. Zide; 1987), pp. 109-13; reprinted by permission of Gunter Narr Verlag, Tübingen;

'The languages of the Nilgiris', *Blue Mountains: The Ethnography and Biogeography of a South Indian Region* (ed. Paul Hockings; 1989), pp. 133-43; reprinted by permission of Oxford University Press, Delhi.

Some updating has had to be supplied at various points in the papers, indicated in general by matter included within [ ] in the text or in notes. This is to be found especially in the first paper, that on 'North Dravidian velar stops'. This subject has been treated so differently in the 1988 paper on Proto-Dravidian **c-* that the 1961 paper has been included here only because of its almost complete inaccessibility. The following two papers also have much updating. Occasional new items of verb data have been added in the paper on 'The South Dravidian Languages'.

M.B. EMENEAU

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I thank Professor Emeneau for allowing his Selected Papers in Dravidian to be published in India, thereby filling a long-felt need of Dravidian scholars. He did all the editing as well as most of the proof-reading, himself. I only tried to make sure that all the corrections that Professor Emeneau made had been carried out.

Professor Emeneau received the Degree of Doctor of Literature (Honoris Causa) from the University of Hyderabad in 1987. The University is, therefore, proud of contributing a small subvention to the Publisher to facilitate the publication of his papers in India and this is a humble gesture on the part of the university for Professor Emeneau's monumental contribution to South Asian linguistics in general, and Dravidian linguistics in particular. He is undoubtedly the greatest living Western Indologist of our time.

Motilal Banarsidass, particularly my friend, Mr. N.P. Jain, deserves all praise for printing a difficult book with great patience and care.

I record my appreciation of my former student, Dr. G. Umamaheshwar Rao, Reader in Applied Linguistics, University of Hyderabad, for preparing the word index for the volume. He received useful suggestions from Mr. E. Rama Reddy, Librarian, University of Hyderabad, in preparing the index.

BH. KRISHNAMURTI

INTRODUCTION

By

Bh. Krishnamurti

This volume has 27 selected papers/chapters published in several journals, festschrifts and books, some of which are either out of print or out of reach to Indological scholars. The last four chapters (pp. 405-55) relate to Toda ethnology and oral literature. The remaining 23 papers have linguistic themes with focus on comparative aspects of the Dravidian languages. The topics covered can be classified under: 1. Comparative phonology from the standpoint of one or two languages or a subgroup (Ch. 1, 4, 9, 10, 11, 14, 16, 21); 2. Comparative morphology (Ch. 2, 5, 6, 7, 12, 15, 17, 18, 19); 3. Word studies or etymological studies (Ch. 3, 8. 23); 4. Ethnosemantics (Ch. 20); 5. Onomastics (Personal names of the Coorgs) (Ch. 13), and 6. finally, a survey article on Nilgiri languages (Ch. 22). Most of the papers have unravelled difficult phonological and morphological problems of Toda, Kota, Koḍagu and Brahui on which Professor Emeneau has first-hand knowledge and control of data. The availability of these studies in one volume would certainly facilitate future research on Dravidian linguistics and ethnology. The 23 articles are arranged in a chronological order, spanning nearly three decades, 1961-89. The four papers under 'Toda Studies' (Ch. 24-27) belong to the sixties.

1. Comparative Phonology

1.1. The 'North Dravidian velar stops' (Ch. 1), published originally in 1961, proposed a new rule of velarization of Proto-Dravidian palatal **c* word-initially:

(1) a. $*c > k/\# — *u, *\bar{u}$ (NDr.)
b. $*c > k/\# — *e, *\bar{e}$ (NDr.)

Both these have exceptions: (1a) is 'fairly certain' and is also phonetically plausible (p. 12) compared to (1b). *DEDR* 1955 SDr. *ceppu* 'to say, to tell': Kur. *keb* (*kepp*-) 'to scold, lecture', in my opinion, is related to the 'ear' word *DEDR* 1977 **kew-i* (cf. Kur. *xebdā* 'ear') in the same way that PDr. **win*/**wen* 'to hear, to ask' is related to Te. *wīnu* 'ear', *TVB* index s.v. *ceppu*. Note that Kuṛux has *x*- ~ *k*- (p. 12). Read with Burrow's 1943 and Pfeiffer's observation, (1a) untangles a major phonological problem. In his 1988 Paper (see Ch. 21) Professor Emeneau has abandoned his claim that the above sound changes were regular rather than sporadic and incomplete.

1.2. Ch. 4 'Brahui vowels' shows how PDr. mid short vowels **e *o* have undergone changes in Brahui which had lost these vowels under the influence of the surrounding Indo-Iranian languages; **e>i, a; *o>u, a, ō*. The conditioning factors are only partly recoverable. This chapter exhaustively treats the comparative phonology of Brahui vowels.

1.3. The discussion of the developments of PDr. **ẓ (DEDR ṛ), *ḷ, *r, *ṛ* in Brahui (Ch. 9, pp. 208-20) 'makes a decided advance' over earlier studies 'in that it demonstrates the convergence of several PDr. phonemes into two overlapping sets of Brahui resultants...' (p. 208). Professor Emeneau could make definitive statements of the correspondences for PDr. **ẓ*, viz. Br. *r* (2 items), *rr* (2 items), *r* with metathesis (3 items), *ɸ* (4 items), *ṛ* (3 items), *ḍ/ḍḍ* (1 item); the variation *r/rr/ṛ/ḍ* reminds us of similar developments in the Gondi dialects (Krishnamurti and Garapati U. Rao 1989). In Ch. 16 (pp. 303-06), Professor Emeneau has noted three certain cases for **ẓ* > l/.*l̲h* Some of the conditions of the split have been detected but dialect variation cannot be ruled out as in the case of Gondi.

1.4. A 'Kota vowel-shift' (Ch. 9, pp. 175-82) is an illuminating study of vowel harmony (umlaut) involving the assimilation of a root vowel to the quality of the following formative vowel. The rule is:

(2) PSDr. **oC-ay > *oC-e > *eC-e > eC* (Kota)

The intermediate stages are not attested, but can be postulated in view of the final result and other developments discussed below, e.g. Ta *kuṭai* (PSDr. **koṭ-ay*): Ko. *keṛ* 'umbrella'. Umlaut occurs in a few cases even where a CC (PP = geminate or NP = homorganic nasal + stop) instead of a C intervenes. An underlying **u* of PSDr. in many such cases does not merge with **o* in PSDr., i.e. PSDr. **uCC-ay* > Ko. *iC-ɸ*; e.g. Ta. *kupp-ay*: Ko. *kip-* 'heap'.

1.4.1. Professor Emeneau has given 26 lexical items from Kota which have undergone the above changes. There is a much larger number in which the expected changes of **ō̆>ē̆, ū̆>ī̆* have not taken place, i.e. 22 nouns and 9 verbs (pp. 177-78). Besides, there are 7 doublets, e.g. Kota *mel, mol*: Ta. *mul-ai* 'breast'. These are too many exceptions to be explained away either as borrowing or as aberrations. Two explanations seem to be plausible: (i) This is a case of lexical diffusion of the sound change and only part of the lexicon could have been covered when Professor Emeneau collected his data in the thirties. Normally 'umlaut' is not the kind of change which is a candidate for lexical diffusion (Labov 1981); (ii) A shift in the chronological profile of the intermediate changes will account for the different results.

To illustrate (ii), let us say the order of the rules (changes) was as follows:

(3) a. Fronting and raising of *-ay*
PSDr. *oC-ay* > **oC-e* (output Pre-Kota)

b. Root-vowel assimilation
**oC-e* > **eC-e* (output Pre-Kota)

c. Final vowel loss:
**eC-e* > *eC-ϕ* (output Kota)

A complement to the above rules similarly applies as (4a) to (4c).

(4) a. PSDr. **uCC-ay* > **uCC-e*

b. PSDr. **uCC-e* > **iCC-e*

c. PSDr. **iCC-e* > *iC (C)*

(3) and (4) can be treated as a single set of changes with appropriate formalism; the changes affecting the medial consonant(s) are not considered relevant here (*ḍ*>*ṛ*, *mb*>*b*, etc.). A final geminate is simplified to a single consonant after the loss of the erstwhile final vowel. The above ordered rules account for the changes proposed in this paper.

1.4.2. It is possible to think of some dialects in which the rules occurred in the above order and other dialects in which (3c) and (4c) followed (3a) and (4a) which made (3b) and (4b) inoperable as in (5) and (6).

(5) a. PSDr. *oC-ay* > **oC-e* (Pre-Kota)

c. **oC-e* > *oC-ϕ* (Kota)

b. Cannot apply

(6) a. PSDr. *uCC-ay* > *uCC-e*

c. *uCC-e* > *uC(C)-ϕ*

b. Cannot apply

All doublets support the hypothesis that Rules (3) and (5) had overlapped. Since most verb stems attest the loss of the vowel *-e-* < **-ay-*, being medial in stems, the loss was likely to have originated medially in verbs and extended to other positions and stem types, e.g. Ta. *urai* (*-v-*), *urai* (*-nt-*) v.i. 'to be rubbed away', *urai* (*-tt-*) v. tr. 'to rub': Ko. *orv-*(*-ord-*) 'to touch', *ort-* 'to rub into paste' (PSDr. **or-ay-w-*, **or-ay-nt* v.i., **or-ay-*(*m*)*pp*, **or-ay-*(*n*)*tt-* v. tr.). There is a small class of residual forms like Ko. *moyr*: Ta. *muṟay* 'complaint'. In such cases an intermediate Pre-Kota change, **moṟ-e*>*mor-i*/*mor-y* with metathesis of the final two sononants helps to account for these aberrant forms. Alternative (ii) above is a typical illustration of Kiparsky's (1968: 195-96) 'rule-reordering' being a possible historical change.

1.5. 'Koḍagu vowels' (Ch. 10, pp. 183-210) is yet another major breakthrough in comparative Dravidian phonology. Koḍagu has two new vowels—back unrounded *ï ë* (short and long) which emerged through a set of conditioned sound changes with later loss of the conditioning factors. Here the conditioning factors are the preceding and following consonants and following vowels. Professor Emeneau draws our attention to Firth's discovery of the centralized allophones of vowels when followed by retroflexes in Tamil; this must be true of Koḍagu and some other Southern languages also (pp. 194-95).

1.6. Ch. 14 (pp. 274-86) provides a neat solution to the loss and retention of PDr. vowels in Toda in non-initial syllables. PDr. short vowels are all lost (except *i*) and long vowels become short. These should be chronologically ordered rules with the latter operating after the application of the former. Or the output of the latter, the former rule will not operate although it can provide the input conditions for it (counter-feeding order, Kiparsky 1971). A number of grammatical formations have become historically explainable through these rules.

1.7. Ch. 21 (pp. 339-85) is a monograph size paper involving a difficult phonological problem of Dravidian, viz. the developments of PDr. **c*. Making an extensive survey of the phonetics of **c* in three positions, initial **c*, geminate **-cc-* and post-nasal **nc* in different Dravidian languages, Professor Emeneau concludes that PDr. **c* was a palatal affricate [tš̆] rather than a dental/alveolar affricate [ts] or alveolopalatal [tś] (§ 6.12, p. 347). Since **c* is represented as a sibilant [s] word-initially in several languages (South, South Central and Central), Professor Emeneau posits the phonetic shift [tš̆]>[š̆] (with the loss of the stop element). However, the resultant sibilant in almost all the languages that have this shift is a dental or alveolar [s]. Professor Emeneau invokes a 'fricative universal' to account for *š̆>s*, from Nartey (1979): 'If a language has only one primary fricative, its primary allophone is almost likely to be /s/' (p. 349).

1.7.1. When Professor Emeneau sent me the mss. of this paper, I differed from him on the phonetic reconstruction of PDr. **c* for the following reasons: (1) PDr. **c* was probably a denti-alveolar affricte [ts], because it is easier to explain the allophones, alveolopalatal [tš̆] when followed by front vowels *ĭ, ĕ*, and [ts] when followed by nonfront vowels in Telugu, Kannada (and also in Marathi as an areal feature); it is less plausible to posit [ts] as a positional variant of [tš̆] when followed by nonfront vowels *a, u, o*. (2) [ts] can easily develop to [t] and [s] which has happened in different Dravidian languages without the need to posit *š̆>s* by invoking a language universal (note Toda **c->*t-*; the same sporadically in many other languages); **c->s-* in standard Kannada, non-standard Telugu, all South-Central Dravidian languages viz., Gondi, Kui, Kuvi, Pengo and Manḍa allophonically [h], and several Central Dravidian languages. (3) The spoken literary Dravidian

languages phonetically represent the affricate /*c*/ not as [tš] with grooved tongue position, but with spread blade of the tongue and without lip rounding approximating to [tś] an alveolopalatal rather than a palatal. Firth's description of Tamil sibilant (p. 343) 'an *s* sound with a bit of *ś* in it. . . produced with the blade of the tongue behind the teeth ridge without any lip rounding . . . It is more *s*-like in initial positions. . .' supports the approximation of the fricative with *s* or *ś* rather than with *š*. In Koṇḍa [ts, dz] freely vary with [s, z] which are phonemicized as /s z/. (4) Despite Professor Emeneau's marshalling of data to clinch the phonetic reconstructions of **c*, it must be accepted that any statement on the phonetics of reconstructed phonemes will have only a broad academic interest. It will not really explain the mechanisms underlying sound change. We have several such problems in Dravidian, for instance, what could be the true phonetic value of **ẓ* such that it could develop into *r, l, ḷ, ḍ, ṛ, ṇ* and *ϕ*? Was **nṭ* pronounced as [nṛ] or [nḍ]? Both surmises are possible.

1.7.2. In the second part of the article (§§ 9-29; pp. 350-69) the sporadic developments of **c* into *ϕ*, *t-* or *k-* have been discussed in great detail. Writing this in 1988, Professor Emeneau looks back on his earlier insistence on the regularity of sound change within the neogrammarian framework. He now considers his 1961 paper (Ch. 1) as representing a sporadic sound change and not a regular one. He also notes that several of the irregular changes *c-* > *ϕ*, *c-* > *t-* could be treated as instances of lexical diffusion of sound change which got arrested midway (§ 12, p. 352): 'It must, however, be realized that the evidence indicates that the loss of **c-* is found in only a small part of the lexicon, and that it tends to affect each item differently over the various parts of the whole SDr. (and Telugu) area. . . a neo-grammarian type of treatment is inadequate' (p. 355). Here lies the greatness of Professor Emeneau. It is not easy for traditional historical linguists to compromise on the neogrammarian doctrine of the regularity of sound change.

2. Comparative Morphology

2.1. Ch. 2 (1961) and a revised and expanded version of it, Ch. 17 (1980), set up for PDr. at least three deictic bases **i*/**ī*, **u*/**ū* and **a*/**ā* (proximate to distant). Kui *i e a o* and Kuvi *i e he hu* present two problems, viz. interpretation of Kui *a o* and matching these with Kuvi *he hu* and explaining the *h* element in several of the South-Central and South Dravidian languages (pp. 307, 308). PDr. **i*/**ī* is identifiable in Brahui enclitics, e.g. *ī-tō-kā* 'with me' ('with this one', i.e. 'me'), *i-tō-tā* 'with them' ('with these ones') (p. 21). Br. *ō* is intermediate and *ē* distant, while *dā* (< Pashto) is proximate. It appears that for SCDr. languages one can reconstruct **i *e *a*, in which **e* is intermediate corresponding to **u* of SDr. A number of Indo-Aryan and Munda languages also show *h-* in demonstrate pronouns which

is considered an areal feature. Indo-Aryan *eṣakaḥ* > Apabhramśa *ehau* > *hā* 'this one' is one of the suggested sources (pp. 309-10).

In view of the peculiar phonology of the demonstrative bases in Dravidian such as VC/$\bar{V}$ (where C is identical with the following consonant), the occurrence of Ta. *āytam* in *ahṯu* 'that one' (DEDR 1), *iḥṯu* 'this one' (*DEDR* 410a), etc., and the emergence of *h* in South Central and North Dravidian languages, etc., I proposed that the PDr. roots had a laryngeal *H* as in **aH* 'that', **iH* 'this', **uH* 'yonder'. Professor Emeneau, following De Vrees and Zide, considers *h-* a demonstrative modifier meaning 'far' and *n-* 'near'. Ch. 17 gives clear evidence for *h-* in North Dravidian being a borrowing from the neighbouring Munda (p. 311) denoting 'far', added to inherited bases, *i, u, a* as *hi, hu, ha*. Professor Emeneau suggests that *h-* could simply be an 'expressive' element tagged on to demonstrative bases and that this is an areal trait (pp. 312-13). Regarding the intermediate vowels *ē, ō* of Brahui, Professor Emeneau now considers them as borrowings. Br. *ē* 'remote' compares with SCDr. **e*. These papers clearly establish that Munda and Drav. *h-* and *n-* are an areal feature (pp. 313-14).

2.2. 'Brahui *n/r* verbs' (Ch. 5) studies the verb inflection of ten Brahui verbs comparatively and isolates the Dravidian elements in the conjugation system. This is a very thorough study in comparative morphology, illustrating how borrowed elements integrate with inherited ones in the course of language change. Only two observations: The past stem of *mann* 'to become' is *mass-* (PDr. **man* 'to be, exist'). The PDr. past stem could be formed by adding **t* or **tt*, yielding **man-ṯ* SDr., **man-ṯṯ* SCDr. In SCDr. Telugu has *maṇ-ṭ-* (<**maṇ-ṯṯ* past), but the rest of the languages of the group had lost the nasal, i.e. **maṯṯ* (<**manṯṯ-*); this accounts for Go. *matt-*, Konḍa *maR-*, Kui *mas-*, Kuvi *mac-*, Pe., Manḍa *mac-* (*DEDR* 4778). This sound change is true of all *(C)Vn-* type of verbs in SCDr. Brahui shows apparently *mass-* derived from an older **maṯṯ-* (< PDr. **man-ṯṯ*).

Br. *ann-* (past *ass-*), *ba* (*bass-*) look analogical. Brahui *ann-* is the restructured past stem of PDr. **ā* (past **ān-*) where it had lost the past meaning. Brahui negative paradigm with *p/pp* in nonpast and *t/tt* in past indicate the erstwhile grammatical function of these suffixes in PDr. which had lost their meanings and became simple formative suffixes. Similar changes are found in the entire family. That this feature is still preserved in Brahui is very revealing (§ 3.13, pp. 54-55).

2.3. A monograph size study in comparative morphology is 'The South Dravidian languages' (Ch. 6, pp. 71-161). Professor Emeneau used the past stem formation with the morphs **i, *t, *nt, *tt* to set up a subgrouping of the SDr. languages. These are phonemicized as **i, *d, *nd, *t*. The splitting of Koḍagu is traced to a pre-Toda-Kota stage. The base is S^1, and S^1+a past morph is S^2. The Koḍagu inflection appears to be closer to Tamil and Malayalam than to Toda and Kota. It appears to me that Koḍagu and not Toda-Kota is the nearer branch of Tamil-Malayalam (Krishnamurti 1969).

Even in the case of palatalization **y-nd*>(*y*) *nj*, *y-tt*>(*y*)*c*, Koḍagu is like Malayalam. In Toda and Kota there are palatalizations (p. 9, § 3.11) which are peculiar innovations to these languages. Ta. -Ma. -Koḍ retain the tense-voice pairs in verb inflection lost in Toda and Kota (§ 4.10, pp. 106-07).

2.3.1. Professor Emeneau considers the pair *nt*: *tt* (**nt*: **ntt*) representing intr.: tr. contrast in the past tense formation as an innovation in SDr., which was not shared by Kannada (pp. 99, 100). An indepth study of these suffixes has shown that this feature is a retention in SDr. which most languages have lost. Similar alternations **mp*: **mpp*, **nk*: **nkk* must be set up reflecting intr.: tr. contrast in nonpast for Proto-Dravidian. The nonpast pairs had lost the tense meaning much earlier in PDr. and only the past paradigm has preserved the two-way Proto distinction.

2.3.2. Arguments in favour of considering **nt*: (*n*) *tt* as a retention:

(1) Loss of one of the categories (tense, here) in a grammatical complex and retention of the other, viz. voice (intr.: tr.) is a more likely innovation than innovating a combination of two discrete grammatical categories into a complex morph in inflection.

(2) Most languages have evidence of the erstwhile tense suffixes being incorporated into stems as mere formatives, having lost their tense signification, e.g. Ko. *karv-* (*kard-*) 'to bellow'; Ta. *karai* (*-v-*, *-nt-*) (see p. 105). Here *-v* in Kota is an older nonpast suffix reduced to the status of a stem formative. Similarly in Te. *nil* (*u*) *cu* 'to stand' *-c-* was historically a part of the past morph **-ci-* (see Krishnamurti 1961: 162-66).

(3) Where there is no intr.: tr. opposition **nt* continues as past morph in monosyllabic bases ending in **l*, **r*, **z* (**cel*: **cen-ṯ-* (<**cel-nt-*), **wa* (*r*)-: *wa* (*r*)*-nt-*, **wāz* 'to flourish': **wāz-nt* (see p. 103)).

(4) Loss of the tense meaning in pairs of stems which carried *nk*: *nkk*, *mp*: *mpp*, *nt*: *tt* and incorporation of these as stem formatives signalling only voice led to the emergence of trisyllabic stems in Dravidian with intr.: tr. contrast, e.g. PDr. **tir-u-nt-u*: **tir-u-*(*n*) *tt-u*, **tir-u-mp-u*: **tir-u-*(*m*) *pp-u*; **kal-a-nk-u*: **kal-a-*(*n*) *kk-u*, etc. Telugu and Kannada have also lost the voice distinction except in a few archaic pairs.

2.3.3. Only SDr. has preserved the PDr. alternation in the past tense paradigm. Kannada must have lost it after Baḍaga had separated from it, because Baḍaga has such pairs (see pp. 109-11); here Professor Em eneau believes this to be a later change in Baḍaga on account of contact with Toda and Kota.

2.4. Ch. 7 is a ground-breaking Paper in identifying and reconstructing some noun derivational suffixes in South Dravidian. Very little work has been done on the *kṛt* and *taddhita* suffixes in Dravidian: Ka. *-kuḷi*/*-kuṇi*, Ta. *-talai*, Ka. *-tale*, To. *-tas*/*-θas*, Te. *-dala* and Ta. *-uḷ*, with examples have been comparatively studied.

2.5. Ch. 12 (pp. 223-62) is yet another pioneering exploration into the

structure and function of Dravidian verbal bases involving formative suffixes of the type -V, -VC (V), -VCC (V), -CV, -CCV, etc. Professor Emeneau confirms the observation of Krishnamurti (*TVB* pp. 146-7, § 2.38) that formatives of the type V+liquid (*-Vr, -Vṛ, -Vl, -Vḷ, -Vz*) were originally intransitive morphemes which preserve their grammatical meaning in NDr. (Kuṛux-Malto) but have lost that meaning in SDr. I made this observation casually and did not make an intensive study of the phenomenon. Professor Emeneau correctly attributes this phenomenon to Proto-Dravidian. Krishnamurti also noted that **-umu* of Telugu verbal bases tended to be a transitive marker contrasting with *-Vv, -Vl, -Vy*, etc.; e.g. *cid-iyu* 'to be crushed', *cid-umu* 'to crush' (*TVB*, p. 157, § 2.71).

2.5.1. Professor Emeneau noticed the productive occurrence of *-k, -p, -b, -v* as 'plural action' markers in Kui-Pengo with evidence of the phenomenon also in Gondi-Koṇḍa. Professor Burrow called these 'frequentative-intensives'. Professor Emeneau searched through the whole family and observed that this was a Proto-Dravidian feature which lost its derivational meaning and the suffixes are retained as 'plural only' (plurale tantum) markers in SDr., SCDr. and NDr., Tamil, Telugu, Kuṛux, Malto, etc.

2.5.2. In the description of Kui, Winfield notes the following facts:

In the First Conjugation, velar *-k* is added to the verb root as an augment in the present participle but not in the past, e.g. *aḍ-a* 'to join'; *aḍ-ite* (past tense); *aṭ-k-i* (present participle); if the root ends in a velar, only *-i* is added in the present participle to the infinitive, i.e. *brunga* 'to be plucked'; *brung-ite* (past), *brunga-i* (present); before *-ki*, root final *d/nd→t, j/nj→s, ḍ/nḍ→ṭ, b/mb→p*, if transitive, otherwise *-mb*, e.g. *ḍũmba* 'to shrink (v.i.)': *ḍũmba-i* 'to shrink (pres. ppl.)'; *ḍāmba* 'to pound': *ḍāp-ki* (pres. ppl.); there are also some transitives where *mb* does not become *p*. Those that end in *-ha, -pa, -ka* also do not add the augment *-k* in present ppl., but simply add *-i*.

The Second Conjugation stems end in *-pa* which disappears in the future, past and perfect, but remains in the present participle. Most of these are transitive stems related to intransitive stems of the First Conjugation.

1st conj.	Pres. Ppl.	2nd conj.	Pres. Ppl.
aḍ-a 'to join' (v.i.)	*aṭ-ki*	*aṭ-pa* 'to join' (v. tr.)	*aṭ-p-i*
brung-a 'to be plucked'	*brunga-i*	*brup-ka* (< *bruk-pa*) 'to pluck'	*brup-ki* (< *bruk-pi*)

The Third Conjugation has *-v* augment in the infinitives which is lost again in the future, past, and perfect; in the present participle, *v→ϕ* after

all but the front high vowel, preceded by C, e.g. *giva→gip-ki*, *dīva→dīp-ki*, *sīva→sīp-ki*, but *āva→ā-i* (< **āva-i*).

The Fourth Conjugation has *-b* as augment which occurs as *-b-i* in pres. ppl. but is absent in other tenses and aspects; some morphophonemic changes occur like *gba→bga*; the present participle marker is *-gi* after *-n* ending roots where it becomes *-ji*.

Winfield states that the same augments *k*, *p*, *v*, *b* signal plural action but the new bases are all inflected like the First Conjugation. For verbs of the First Conjugation (*a* verbs), this new base is formed by adding *-k* to the regular base; but for verbs of the Second, Third and Fourth Conjugations (*pa*, *va*, *ba* verbs), the new base is formed by accepting as a permanent part of it the semi-formative *p*, *v*, or *b* characteristic of these verbs, i.e. the infinitive less final *-a* becomes the plural action base. Then the plural action forms are expressed by conjugating all verbs on these new bases as First Conjugation verbs, no matter whether in their simple form they are strong or weak verbs' (Winfield, p. 143).

1st conj. *ṛūsa* 'to stroke' pl. action *rūsk-*: *ṛūsk-ite* (past), *ṛūska-i* (pres. ppl.)
2nd conj. *vespa* 'speak', pl. action *vesp-*: *vesp-ite* (past), *vespa-i* (pres. ppl.)
3rd conj. *sāva* 'die', pl. action *sāv-*: *sāv-ite* (past), *sāva-i* (pres. ppl.)
4th conj. *salba* 'to go', pl. action *salb*: *salb-ite* (past), *salba-i* (pres. ppl.)

In Pengo the intensive-frequentative bases are formed by adding a suffix *-pa*, *-ba* or *-ka*. Evidence of this phenomenon is found in Kuvi and Koṇḍa also (p. 233).

2.5.3. It appears that the occurrence of *k*, *p*, *b*, *v* in Kui in one of the nonpast stems (pres. ppl.) holds the clue to their origin. I have discussed at length elsewhere that the tense and transitive morphemes with the alternation *NP: *NPP in PDr. gradually lost their tense meaning (except in the past in Tamil-Malayalam-Koḍagu) and later became only markers of intr.: tr., e.g.

Past				*Nonpast*	
intr.	tr.	intr.	tr.	intr.	tr.
**nt*	**ntt*	**nk*	**nkk*	**mp*	**mpp*
**t*	**tt*	**k*	**kk*	**p*	**pp*

In Tamil and Malayalam only the past tense paradigm preserved the double signification, e.g. *cēr* 'to join' (v.i.), *cēr-nt-* (past), v. tr., *cēr-tt* (past) (<**cēr-ntt*). The past-nonpast alternation was preserved in Classical Telugu causative morpheme *-inc* (past), *-imp* (nonpast), e.g. *cēy-inc-i* (past ppl.) 'having caused it to be done', *cēy-imp-a* inf., neg., etc. These are

traced to PDr., **key-vi-ntt-* (past), **key-vi-mpp* (nonpast), Ta. *cey-vi-tt-* (past), *cey-vi-pp-* (nonpast).

The above illustrations give the clue to the original tense signification of **(n) kk*, **(m) pp* being Proto-nonpast markers which later lost even the voice distinction in many of the languages. The progression was tense-voice>voice>ϕ. All these steps are attestable.

It, therefore, appears that the augments *-k*, *-p*, *-b*, *-v* which were the original nonpast markers remained as relics (augments) in Kui nonpast paradigms. The innovation was that they were given a new derivational meaning in South Central Dravidian (minus Telugu) with different degrees of productivity.

2.5.4. In the case of 'motion particle' *-kk-* in Pengo-Kuwi, Professor Emeneau correctly identifies the element as a PDr. nonpast marker given a new meaning (pp. 249-50).

3. Etymological Studies

3.1. Ch. 3 deals with the etymologies of certain words and word classes in Brahui; (1) *dann-* (Pres. *dē-*, neg. **dar-* [*dapp-*, *datt-*]), 'to cut' is traced to PDr. **nēr-*: *ner-V-* (DEDR 3773). PDr. **n-*>Br. *d-* before front vowels; **e>a* in root syllables (see Ch. 4). In the case of words with *h-*, Professor Emeneau has identified *h-* as an automatic phonetic addition to words beginning with vowels, a variant of a glottal stop alternating with ϕ (pp. 25-26); Br. *hin-* 'to go' is, therefore, traced to PDr. **ey-*. Br. *tir-* (*tir-*, *ti-*, *ēt-*/*tē-*, *tiss-*) 'to give' is traced to PDr. **tay-r*/ **tey-r* with complex phonological developments (pp. 27-28). Professor Emeneau has shown that Brahui words with *l̲h* (voiceless lateral) can be traced to PDr. items with *l* or **ḷ* (although these correspond in several items to Brahui *l* and *ll*).

3.2. Ch. 8 tries to tackle the etymology of Brahui *sal*/*salī* 'to stand, stop, cease' in terms of PDr. **cēl*: **cel-*V- on the basis of Ta. *ēl* 'to rise, get up', Te. *lēcu* v.i. 'to rise', *lēpu* v. tr. 'to raise' (<**el-a*<**cel-a-*). This etymology was rejected by Professor Emeneau in his 1988 Paper (Ch. 21; fn. 16) because no language of the Central or Northern groups provides evidence for PDr. **c-*; the item should then be dropped from DEDR 916. The most plausible etymology seems to be DEDR 2565 **cil-ir* 'to stand erect' with an underlying **cil*; **cil-ay* > **cel-ay* > Brah. *sal-ī*.

3.3. In Ch. 18, Professor Emeneau clearly identifies the name of the author *Kamba̲n* of the *Kamba rāmāyaṇam* with the word *Kamba* 'pillar'< Pali Pkt. *Khambha-* <Skt. *skambha-* 'pillar' (pp. 319-20). It is likely to be a name of *Siva* on the analogy of *sthāṇu*, Pkt. *thāṇu* 'post'. This does not help the etymology of Kannaḍa *kampa* in *kampaṇ*(*ṇ*)*a*, because of *-mp* instead of *-mb*. Following Kumaraswami Raja's formulation of 1969, Ka. *kampu* 'fragrance' Te. *kampu* id. (<**kam-pp-*) could be a plausible etymology (*DEDR* 1247 a).

3.4. Ch. 19 is a pioneering attempt at a historical and comparative study of reduplicatives in Dravidian with the meaning 'high degree', excellence', 'emphasis', 'very', etc. (p. 323). Professor Emeneau lists the cognates of the type $(C_1)V_1C_2C_2$- being the reduplicated part of the base $(C_1)V_1C_2V_2$ which follows it; C_2 is a coronal consonant which can geminate, viz. *t*, *ṛ*, *ṭ*, *n*, *ṇ*, *ḷ* (pp. 324-25); in a large number of cases *-a* follows the reduplicated stem, i.e. $C_1V_1C_2C_2$-*a*, Ta *putt-a-pputiya* 'brand new', Ka. *mott-a-modalu* 'the very beginning', *kaṭṭ-a-kaḍe* 'the very end'.

Even bases beginning with vowels are involved, e.g. Ta. *inn-ini* 'now only'; *veḷḷa-viḷar* 'become very white' (<**veḷḷa-veḷar*). There are exceptions to the above formulations which have been discussed. For Telugu the rule is $C_1V_1ṭṭa$- as the reduplicated part irrespective of the C_2 of the base word, *paṭṭa-pagalu* 'broad daylight'; this type is found in the other SDr. languages also (p. 326).

4. Ethnosemantics

4.1. There is one very interesting study in ethnosemantics with the purpose of defining 'cultural areas within the subcontinent'. Professor Emeneau maps the distribution of the descriptive expression 'eating hand' as tha word/phrase used to denote the 'right hand'. The 'right' and 'left' parts of the body have different cultural functions on the scale of purity and pollution (p. 330); 'The right hand is used in eating rather than the left which is used for more menial tasks, as in washing the body after defecation'. Quoting the above statement of David Mandelbaum (p. 330), Professor Emeneau pursues how this trait is reflected in the Dravidian languages. PDr. **walam-kay* 'right hand' originally meant 'the strong hand', **iṭam-kay* 'left hand' (possibly 'distanced hand' which Professor Emeneau considers speculative) (p. 338, fn. 5). In recent times, Tamil, Tuḷu, Telugu have developed different words for right and left hands, viz. Ta. *cōttukkai* 'food hand', *pīkkai* 'the excrement hand', Te *kuḍicēyi* 'eating hand' and *eḍamacēyi* 'distanced hand'. CDr., SCDr. and NDr. have similar expressions with verbal adjectives derived from **tin-* 'eat', **uṇ* 'eat, drink'. Even the neighbouring Munda languages have parallel expressions 'eating hand', beside the normal word for 'right' (p. 333).

'The eating hand' is widely spread even in the spoken varieties of Modern Indo-Aryan (p. 334). The spread of this gloss, according to Professor Emeneau, is concentrated in the South, Central and Eastern (Orissa) areas involving three language families, Dravidian, Munda and Indo-Aryan. Professor Emeneau thinks that Telugu might have innovated such an expression and set the model around the 14th or 15th century which spread to the neighbouring tribal languages. Some of the Dravidian and Munda languages of the Central area have both the original and innovated expressions. This paper certainly inspires linguists to look for similar phenomena in other semantic domains.

4.2. Ch. 23 deals with a word base **cuḍ(ḍ)* 'small' borrowed into various Gondi dialects from IA (Skt. *kṣudra-*>Pkt. *chuḍḍa-*). Here the initial *c* also becomes *s*, *h*, *ϕ* in different dialects as in the case of native items; Chanda, *huḍla*, Hill Maṛia *uḍila*; *kṣ-*>*ch-* as opposed to *kh-* being a Western IA trait, Gondi must have borrowed it from the neighbouring Marathi (p. 400). **chuḍḍa-* is reconstructed for Marathi on the basis of its manifestation in Gondi (p. 401).

5. Onomastics

5.1. Professor Emeneau has published extensively on the onomastics of the Nilgiri languages. This is an addition to his earlier studies. A Koḍagu personal name has three elements: (i) the village or surname; (ii) father's name; and (iii) given name. The last ends in a gender suffix; male: *ayyë*, *aṇṇë*, *appë*; female: *akkë*, *avvë*, *ammë*. These are actually kinship terms meaning father, elder brother, sister, mother, etc. The above pattern fits Tamil, Malayalam and Kannada but not Telugu. Telugu personal names do not include father's name as the middle name. Professor Emeneau provides a very informative analysis of each of the components of the personal names. The first part of the given name may be the name of a local god, Hindu god, beautiful or desirable thing or quality or undesirable thing or quality (apotropaic) (see Tables 1 and 2; pp. 268-70).

6. Nilgiri Languages

Ch. 22 (pp. 388-97) is a more recent article which discusses aspects of convergence and borrowing through multilingualism among the languages of the Nilgiri tribes, viz. Toda, Kota, Badaga, Kuṟumba, and Iruḷa. Professor Emeneau calls the Nilgiris a linguistic micro area and makes several observations on the subgrouping of these languages within South Dravidian.

7. Conclusion

7.1. I have refrained from making any comments on 'Toda Studies' (Ch. 24-27; pp. 405-55), because I have enjoyed reading them but do not have much to comment on because of my own limitations of knowledge in the field.

7.2. While reading through these selected papers of Professor Emeneau spread over three decades, one cannot help being influenced by the thoroughness of his scholarship, his sharp analytical powers and his ability to generalize using inductive and deductive approaches. We can also see how he has revised in his papers the views that he had expressed in his earlier writings once he hit on new evidence or discovered his earlier claims to be untenable. Our knowledge of both comparative Dravidian and the comparative method is advanced not only by his solving or attempting to solve various difficult problems in phonology and morphology but also by

the rigorous methodology that he has adopted. I am hopeful that this volume would be welcomed by every Dravidologist in the world. Historical and comparative linguists will find a great deal of material in this volume useful for obtaining theoretical insights.

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Chapter I

NORTH DRAVIDIAN VELAR STOPS*

The reflexes of Proto-Dravidian (PDr.) initial **k-* in the various Dravidian languages have been well worked out, especially in the definitive paper by Burrow, *BSOAS* 11.122-39 (1943). His statements deal with two sets of phenomena. (1) **k-* is palatalized to *c-* before the front vowels **i*, **ī*, **e*, **ē* in Tamil-Malayalam and Telugu. Some qualifications must be made, viz. that in Tamil-Malayalam a retroflex following the front vowel inhibits the palatalization, and that in Telugu the palatalization occurs also before *ē* resulting from **ay*. (2) In North Dravidian (NDr.), i.e. Kuṛux, Malto, and Brahui, PDr. **k-* is preserved as a stop before **i*, **ī*; before the other vowels its reflex is the Kuṛux and Brahui voiceless velar spirant (*x*), which is spelled in the published sources as *kh*, and Malto *q*.[1] For the very few exceptions to (2), Burrow should be referred to.[2]

Besides the Tamil-Malayalam and Telugu instances of initial *c-* resulting by palatalization from **k-*, there are in these languages many instances of initial *c-* occurring before any of the vowels, with *c-* or *s-* in most instances in most of the other languages of the family. There are also many groups of etyma in which initial *c-* or *s-* of the Central and Northern languages is missing in the Southern languages, including Telugu. PDr. **c-* is posited for both types of occurrence. Burrow treated the latter type in considerable detail in *BSOAS* 12.132-47 (1947), under the title 'Dravidian Studies VI: The loss of initial *c/s* in South Dravidian.' He noted also (p. 142) that sporadically **c-* appears as *t-*, and said that this matter requires further treatment. This further treatment has not appeared, though I have demonstrated that Toda has only *t-* for PDr. **c-*, apart from borrowings which show *s-* (*BSOAS* 15.98-112 [1953]). Bh. Krishnamurti added something further on the phenomenon in *Telugu Verbal Bases,* pp. 12-3, §1.23, but the matter still needs definitive treatment. It will not be pursued here, since it seems to be quite independent of the question to be discussed, even though there is a crossing of the two sorts of data in a few of the groups of etyma. It is to be noted that in discussions of PDr. **c-* it has usually been assumed, implicitly or otherwise, that there are no conditioned variations in the reflexes of **c-* in the various languages.[3]

When all the identifiable groups of etyma are collected, as they are in *DED*, it becomes clear that there are a number of groups of etyma which contain disturbing correspondences between NDr. and all the rest of the languages.

**Te. Po. Mī. Maṇivirāmalar* (Studies presented to T.P. Meenakshisundaram), pp. 371-88 (1961); excerpt from review of Martin Pfeiffer, *Elements of Kuṛux Historical Phonology* in *Language* 50. 755-8 (1974).

In general terms, in these aberrant instances Central and South Dravidian (hereafter C and SDr.) have the expected reflexes of **c-*, i.e. *c* or *s*, with occasionally *t-* (or secondarily *d-*). NDr. has usually velar stops, very rarely the spirant (*x*), and in one Kuṛux occurrence what is written *kh-* (probably an aspirated stop).

The etymologies are as follows, taken with some condensation from *DED* (some were already recognized by L.V. Ramaswami Aiyar, and some were listed in my *Kolami, a Dravidian Language*); intensive study has produced a few additions and new combinations.

(1) Ta. *cuṭu* (*cuṭṭ-*) 'to be hot, burn; warm (tr.), heat, burn up, roast, bake, fry'; *cūṭu* (*cūṭi-*) 'to brand, cauterize'; Ma. *cuṭuka* 'to burn, be hot; burn (tr.), roast, bake, boil'; Ko. *tuṛ-* (*tuṭ-*) 'to roast, bake (pots), burn (corpse)'; To. *tuṛ-* (*tuṭ-*) 'to burn (tr.)'; Ka. *suḍu* (*suṭṭ-*) 'to burn, roast, bake; be consumed with fire, feel hot'; Koḍ. *cuḍ-* (*cuṭṭ-*) 'to burn (tr.)'; Tu. *suḍ(u)-pini, tuḍupini* 'to burn, be hot; burn (tr.), bake, roast'; Te. *cṹḍu*[4] 'to burn, brand'; *suḍiyu* 'to burn (intr.)'; Kol. *suḍ-* (*suṭṭ-*) 'to cook'; Go. *surr-* 'to cook bread'; Kuwi (F) *hūd-* 'to burn'; (S) *hūt-* 'to burn, kindle'; Kur. *kuṛ-* (*kuṭṭ-*) 'to become hot; cook (tr.) on live embers, bake'; Malt. *kuṛ-* (*kuṭ-*) 'to burn, roast, sear'; *DED* 2183, *Kolami* 865. This etymology is particularly satisfactory since the meanings are practically synonymous throughout, the phonology is entirely regular except for the point at issue, and the morphology of the past tense (Ta. *cuṭṭ-*, Kur. *kuṭṭ-*, etc.) has the same peculiarity in all the languages where it could be expected, including the two Northern languages which have the etymon (it is not to be expected in Telugu or Gondi). **c-* appears as *t-* in Kota (as well as in Toda, where it is regular); it could be influenced by the Toda form. [The final collection of etyma in *DEDR* 2654 contains, along with the Gondi entry, items from the other languages of the Gondi-Kuwi subgroup, all except Kuwi (add [Israel] *hūḍ-*) looking to **cuṛ-*; this is correct, since it is certain that PDr. **-ṭ-* and **-ṯ-* coalesced in this subgroup (T. Burrow and S. Bhattacharya, 'Some notes on the Kui dialect as spoken by the Kuṭṭia Kandhs of North-east Koraput', *Indo-Iranian Journal* 5.118-35[1961]; Subrahmanyam 1983, p. 338).]

(2) Ta. *cuma* (*-nt-*) 'to become heavy, be burdened; bear, support, carry a burden'; *cumaṭu* 'burden, load pad for head'; *cummāṭu* 'load pad for head'; *cimpuri* 'coil of straw used for keeping steady a vessel, load, etc., as on the ground or head'; Ma. *cumakka* 'to carry a burden'; *cumaṭu* 'burden'; *cummāṭu* 'load pad for head'; Ko. *tamṭ* 'carrying pad'; Ka. *simbi, simbe* 'ring of cloth used as head pad under loads, coil for setting a vessel on the ground, coil of a snake'; *sivaḍu, sivaḍi, sivuḍi, sivuḍu* 'load pad for head'; Tu. *tumbuni* 'to bear load'; Te. *cumma, cumpāta* 'carrying pad' (*pāta* 'cloth'); Kol. (SR, Kin.) *kunt-* 'to lift'; (W) *kut-* (*kutt-*) 'to place burden on head'; Nk. *cumma* (*c* = *ts*) 'load pad for head'; Pa. *kumt-* 'to carry on head'; *cumṭal* 'load pad for head'; Ga. (Oll.) *kumt-* 'to carry on head'; Kur. *kum-* (pronounced *kumn-*) 'to take or carry on head, make onself responsible for'; Malt. *kum-*

'to take upon one's head, take charge of'; ? Br. *kubēn* 'heavy'; *DED* 2204, *Kolami* 446. This also is a very convincing etymology, because of the specific meanings 'carry on head' and 'load pad for head' and because of the pervasive sequence *c/kum-*. Problems remain: the alternation of *i* with *u* in Ta. and Ka. and of *a* with *u* in Ko., the initial *k-* in the sub-family Kol. -Pa.-Ga., and the possible relationship of the Br. form (for another suggestion, see *DED*, but note that if it is to be taken with *DED* 1784, initial *k-* rather than *x-* is inexplicable). Ko. and Tu. show *t-*. Nk. has an obvious borrowing from Te., and Pa. *cumṭal* also, because of its initial, looks like a borrowing, though we have no record of a Te. form with *-ṭ-* (but the Te. records available to *DED* were not complete, except probably for the verbs; cf. the forms with *-ṭ-* or *-ḍ-* in Ta. Ma. Ko. Ka.). [*DEDR* 2677; there are added Gondi forms *summar*, *umar*, etc. 'head-pad', and Konḍa *simboṛi* id., *suma* 'a cloth rolled into a pad'. The suggestion that *DED* 4211/*DEDR* 5126 (**mō-* 'to carry on the head, bear, carry, be burdened'; Ta. Ka. Te. Go. Kuwi; items in Kol. and Ga. are probably borrowings from Te.) is related to *DEDR* 2677, depends on a development **cuma-* > **cmō-* > **mō-*. In *DEDR* 2677 the query has been removed from Brahui *kubēn*.]

(3) Ta. *curi* (*-nt-*) 'to be spiral as conch, whirl round, eddy, curl'; (*-pp-*) 'to wind spirally, whirl, curl, lie in a circle'; n. 'whirling, spiral, curve, screw, white curl on bull's forehead', *curuḷ* (*curuṇṭ-*) 'to become coiled, roll, curl (as hair)'; n. 'rolling, roll, coil, curl'; *curuṭṭu* (*curuṭṭi-*) 'to roll up, coil, curl, fold, twist'; n. 'curling, coiling, anything rolled up, cheroot'; *cūr* (*-tt-*) 'to revolve, whirl round'; Ma. *curuḷuka* 'to be rolled up, be curled'; *curuṭṭuka* 'to roll up'; *curuḷ* 'scroll, roll'; *curuṭṭu* 'roll, cheroot, sheaf'; Ko. *curṇ-* (*curḍ-*) 'to lie in coils'; *curṭ-* (*curṭy-*) 'to coil, roll (tr.)'; To. *tu·ḷ-* (*tu·ḍ-*) 'to be rolled up (curl, leaf)'; *tu·ṭ-* (*tu·ṭy-*) 'to roll up (tr.), curl'; *tuṣk* 'man's curl'; Ka. *suruḷi*, *suruḷe*, *suraḷi* 'coil, roll'; *suruṭu*, *suruṇṭu* 'to coil, roll up (intr.)'; *surku*, *sukku* 'to curl'; Koḍ. *turïḍ-* (*turïṇḍ-*) 'to be rolled up'; *turïṭ-* (*turïṭi-*) 'to roll up (tr.)'; *tore* 'a string that goes round'; (*torand-*) '(string) is wound round and round'; (*torat-*) 'to wind (string) round and round'; Tu. *turṭu* 'woman's hair tied into a knot'; Te. *dor(a)lu* 'to roll (intr.), turn over'; Pa. *cirḍ-* 'to turn'; *cirl-* 'to revolve'; Go. *surunḍ-* 'to go round and round in marriage ceremony'; Kui *trong-* 'to roll, (child) crawls'; *trok-* 'to cause to roll'; *torg-* 'to writhe'; Kur. *kūr-* 'to put on and tie a sari round one's waist' Malt. *kuṛg-* 'to roll up, wrap up'; Br. *kūr-* 'to roll up (tr.), make a clean sweep of'; *DED* 2211. The forms with *k-* in *DED* 1494, Ta. *kuruḷ*, Te. *kurulu*, etc. (Ta. Ma. Ka. Tu. Te.), all have 'curl of hair' meanings only, and have been separated from the etyma in *DED* 2211; note that none of the NDr. forms with *k-* has that meaning. In this group *t-* is found in Koḍ. Tu. Kui, and *d-* in Te.; the To. development of *t-* is regular, as are other To. developments in these forms (Emeneau, *TPS* 1957.58, 62). The vowel in Pa. is an unsolved problem, as is ṛ in Malto. The relationship of *ū* and *u* in the root syllable is the regular one; see Krishnamurti, *JAOS* 75.237-52 (1955). [*DEDR*

2684; there are added Ga. *sirl-*, *silr-* 'to rotate', Go. (Ch.) *surunḍ-* 'to roll', Pe. *hūr-* 'to wind, roll up', Kui *sursuṛi* 'curly', Kuwi (Israel) *rū'-* 'to roll fibres'. Te. *dor(a)lu*, Kui *trong-*, *trok-*, *torg-* now are in *DEDR* 3514 with other items (the basic meaning is 'to crawl' or the like); this removes Kui *t-* and Te. *d-* from consideration.]

(4) Ta. *curuṅku* (*curuṅki-*) 'to shrink, contract, shrivel, wrinkle, lessen, dwindle, be puckered, creased, be furled, closed as flower'; *curukku* (*curukki-*) 'to curtail, reduce, compress, contract, furl, close, epitomize'; n. 'contraction, reduction, wrinkle, fold, crease, noose'; *cukku* (*cukki-*) 'to get dry'; *curuḷ* (*curuṇṭ-*) 'to shrivel, shrink (as leaf), droop (as from heat, hunger), be reduced to severe straits'; *curi* (*-nt-*) 'to wrinkle'; (*-pp-*) 'to get dried, contract, shrink, wrinkle'; Ma. *curuṅṅuka* 'to shrink, shrivel, be contracted, wrinkled, decrease'; *curukkuka* 'to contract (tr.), furl (sails), wrap, fold, reduce, shorten'; *cukkuka* 'to grow dry, shrivel'; *cuṅṅuka* 'to grow dry or lean, be reduced'; *cūḷuka* 'to shrink, contract'; Ko. *curg-* (*curgy-*) 'to stint oneself to support family'; *curk-* (*curky-*) 'to make small, draw up (legs), shrink'; *cug-* (*cugy-*) 'to be creased'; To. *tuṛ-* (*tuṛy-*) 'to shrink'; *tuḷ-* (*tuḍ-*) 'to pull legs close to body (e.g. while sleeping)'; Ka. *surku*, *sukku* 'to contract, shrivel, shrink, fade'; *soragu* 'to wither, grow dry or sapless, sink away, grow lean'; *suruḷ* 'to contract, shrivel, shrink, fear'; *suruṭu*, *suruṇṭu* 'to become shrivelled or contracted'; Tu. *suruṇṭuni*, *suruṭuni*, *sirṇṭuni*, *sirnduni*, *kuruṇṭuni*, *kuraṇṭuni*, *kurluni* 'to shrivel, contract, shrink'; *sirkuni*, *tirkuni* 'to fade, shrivel, become weak or lean, fall off'; Te. *surũgu* 'to disappear, flee, shrink, fade'; *srukku* 'to shrink, fade, become weak'; Kol. *suk-* (*sukt-*) 'to fade, wither'; Pa. *curk-* 'to shrivel, (cheeks) sink in'; Br. *kurr-* 'to shrink from, contract, keep back, withhold (hand, property)'; *DED* 2213, *Kolami* 866. The Brahui item was not entered in *DED*, though Bray had already noted it. Tu. has not only forms with *t-* but also some with *k-*. This group of etyma and the preceding have usually been treated as one or as closely related. It is, however, dubious whether the two sets of meanings, which can easily be separated out, allow such connection. Once this is noted, it becomes obvious also that there are formal differences (e.g. the suffixes *-ṅk-* and *-kk-* which are rather pervasive in this latter group). If there is a connection, it is of a remote order, comparable to that achieved by means of root-determinative analysis in Indo-European. [*DEDR* 2687.]

(5) Ta. *ceruku* (*ceruki-*) 'to insert, slide into'; *cerumu* (*cerumi-*) 'to sink, pierce through'; *coruku* (*coruki-*) 'to put in, insert, tuck in'; Ma. *cerutuka* 'to shove in, put in'; *corukuka* 'to tuck in, shove in'; *terukkuka* 'to tuck, gather up the cloth'; To. *teg-* (*tegy-*) 'to fasten loin-cloth'; Ka. *serku*, *sekku* 'to shove in, insert, tuck in'; *cuccu, curcu* (<**corucu*) 'to cause to enter into, insert'; Tu. *cuccuni* 'to pierce, bore'; Te. *cekku* 'to set (as a precious stone), thrust, tuck up'; *ceruvu* 'to insert, stick in'; *coccu* (*cor-*) 'to enter, penetrate, pierce; begin'; *con(u)pu* 'to insert, thrust, put or send in'; Kur. *xerr-* (*xirry-*) 'to insert, stick into or behind'; (Hahn) *xer-* (*xirk-*) 'to pocket, put by'; *kherr-*

'to put by'; Malt. *qer-* 'to thrust in, tuck in'; *DED* 2285. Problems include *t-* in Ma., the vowel alternation *e/o,* and, not least, the Kuṛux velar spirant *x* and Malto *q*. [*DEDR* 2778 adds Gondi *harj-* 'to fix, fit in (tr.)'. The Kuṛux items *xer-* 'to pocket, put by', *kherr-* 'to put by', were not included in *DED* or *DEDR*.]

(6) Ka. *calame, calime, cal(u)me, cilume* 'an orifice, bore, small pit, hole dug in the dry bed of a river or a dried-up tank (to collect oozing water), spring of water or a fountain head'; *jalugu* 'place where water drops or oozes'; Te. *celama* 'hole or pit dug for water in the dry bed of a river, etc.'; Pa. *jalug, jalub* 'place where water oozes'; Kuwi (S) *salma* 'well'; *zalla* (*z=j*) 'spring'; ?Br. *kal* 'place where water collects, waterhold'; combination of *DED* 1956 and 1961, with a doubtful addition from Brahui. There are difficulties, one (possibly not a difficulty at all) being whether the *c* and *j* forms are to be connected. The major one is that of deciding whether the original vowel of the first syllable was *a* or a front vowel (e.g. Te. *e*); we hardly have criteria yet for making the decision. Whether it was *a* or *e*, Br. *a* would be an acceptable reflex. Another suggestion for Br. *kal* is that it might be connected with the items in *DED* 1239 [*DEDR* 1980], Ta. *kāl* 'irrigation channel', etc. (Ta. Ma. Ka. Tu. Te.) all with *ā*. If it were directly connected with these, we should *prima facie* expect in Br. the velar spirant *x*. Moreover, the semantic connection, on the whole, seems better with the words with initial palatal. One more suggestion is possible. Lexical Sanskrit *khalla-* 'canal, creek, trench', Prakrit *khāla-* 'very small stream, gutter' (and possibly *khalla-* 'hole in fence') originated in all probability in the etyma of *DED* 1239 (the Tamil form is old); so Burrow, *BSOAS* 12.376 (and *DED*), followed by Mayrhofer, *Kurzgefasstes etymologisches Wörterbuch des Altindischen*, s. v. *khallaḥ*,[1] with 'vielleicht'. Whatever the origin of the Indo-Aryan forms, a Modern Indo-Aryan derivative might have been suggested as the immediate source of Br. *kal*, especially if there were such a form attested for one of the northwestern languages (Sindhi, etc.). Unfortunately, none is attested either by Turner, *Nepali Dictionary*, s. v. *khālci* (derivative of Skt. *khalla-*, etc.), or by Bray (who can make no very useful suggestion). Failing this, the related Hindi *khāl* 'creek, inlet, canal, river, trench' is a possibility, and, everything considered, the best one, unless the connection suggested at the beginning of this paragraph is accepted. [The items with *c-* and *j-* are still in separate entries in *DEDR*, 2367 (*c-*) and 2373 (*j-*). 2367 has the addition Tulu *cilimbi, cil(i)mè* 'a small tank'; on the whole, it seems probable that the first syllable contained a front vowel (**i* or **e*). 2373 now contains Kuṛux *jalkạ'ānā* '(rain) percolates and soaks the ground thoroughly, so that in low-lying spots water oozes out or opens new springs' (not in Pfeiffer); the vowel of the first syllable in 2373 should be **a*. Brahui *kal* is still in *DEDR* 2367 with a query and an alternative suggestion of derivation from Hindi *khāl*. If the Brahui vowel were long *ā*, there would be no hesitation about this Hindi derivation (Turner, *CDIAL* 3849). As it is, Hindi *khāl* may still be the source, unless one wishes

to suggest that Brahui borrowed from Indo-Aryan at a very early period when this source still had a short vowel (similar to Prakrit *khalla-*); Turner records no form from a northwestern dialect. Brahui *kal* is of such uncertain origin that it had better be omitted from further discussion.]

(7a) Ta. *cēr* (*-nt-*) 'to become united, joined together, become mixed, be in close friendship or union, fit, suit, be collected, join, be in contact with, belong to'; (*-tt-*) 'to join, attach, add, insert, gather'; Ma. *cēruka* 'to approach, come close, join, belong to, fit, suit'; *cērkka* 'to make to arrive or join, collect'; Ko. *ce·r-* (*ce·d-*), *ce·d-* (*ce·dy-*) 'to arrive, join, gather (intr.)'; *ce·t-* (*ce·ty*) 'to make to gather or enter a place'; To. *sö·r-* (*sö·d-*) 'to arrive'; *sö·t-* (*sö·ty-*) 'to make to join with others'; Ka. *sēr* (*sērd-*) 'to become or be near, go to, approach, reach, come, belong to, enter, join, assemble, agree, suit'; Koḍ. *se·r-* (*se·ri-*) 'to join (intr.)'; *kë·r-* (*kë·ri-*) 'to go up to house'; *ke·t-* (*ke·ti-*) 'to take (person) into house'; Tu. *śēruni* 'to arrive, be added to, be in harmony'; Te. *cēru* 'to join, approach, reach, arrive at, assemble, belong'; *cendu* 'to get, obtain, suffer, belong, reach, meet'; Kol. *ser-* (*se-*, *sedd-*) 'to go'; Nk. *śer-* (*śedd-*) id.; Go. *sēṛ-* 'to invade a country, enter or occupy a house'; Kuwi (S) *hēr-* 'to reach'; *herp-* 'to deliver'; Kur. *ker-* (past stem of *kā-* 'to go'); Br. *kēb* 'nearness; near'; *kēb kann-* 'to approach'; *DED* 2312 (*Kolami* 814 and *DED* 2286 wrongly connect the Kol. Nk. items with Ta. *cel*, Ka. *sal*, Te. *canu*, etc.; these are PDr. **cal-*/*can-*, and the only possible Kol. form that can be connected with them is *sa-*, one of the allomorphs of *ser-*). The short vowel *e* in Kol. Nk. and Kur. must be explained as a shortening of *ē* before a (now disappeared) vowel suffix; Te. *cendu* is <**cēr-und-*. The To. forms with *s-* are borrowed, probably from Badaga. The Koḍ. forms with *k-* should be compared with the Kol.-Pa.-Ga. *k-* forms in (2) and the Tu. *k-* forms in (4). Br. *kēb* is to be compared with derivative nouns with labial suffixes such as Ta. *cērppu, cērpu, cērvu, cērvai*, Ka. *sēr(u)ve*, Te. *cērupu* ('nearness'); details are still to be worked out.

(7b) Ta. *cār* (*-nt-*) 'to reach, approach, be near to, unite, be related to, resemble, lean on'; *cārttu* (*cārtti-*) 'to cause to lean, support, join, unite'; *cāy* (*-nt-*) 'to march in crowds, happen, succeed'; *cāl* (*cāṉṟ-*) 'to be abundant, be suitable, fitting, be great, noble'; Ma. *cāruka* 'to lean against, rely upon, be attached to; place against, put on'; *cāra* 'bending sideways; near, close'; Ko. *ca·ry* 'near; side'; *ca·g-* (*ca·gy-*) 'to be possible; (man) becomes old, (time) is past, (possessions) are moved from one house to another'; *ca·km* 'sufficiency'; *ca·ko·* 'it is enough'; Ka. *sār* 'to come or go near or to, approach, join, be obtained, come or go, come about'; *sāre* 'near, proximity'; *sāgu* 'to go, proceed, advance, be brought about, achieved or accomplished'; *sāl(u)* 'to be sufficient'; *sāku* id.; Tu. *sāguni* 'to proceed, progress, move forward'; *sāku* 'to suffice'; Te. *cāgu, sāgu* 'to go on, proceed, continue, be successful, be effective'; *cālu* 'to be able, be enough'; Kol. (SR, Kin.) *sāl-* 'to be able'; Koṇḍa *sāŋ-* 'to go'; Kuwi (S) *hāl-* 'to suffice, be enough to'; Kur. *kā-* (*kāl-*, past *ker-*) 'to go, progress favorably, continue, pass (of time), come to an

end, (stomach) has diarrhoea, bring oneself to, be able to'; Malt. *kál-* (no past tense) 'to go, come to'; Br. [*hin-*][5] (pres. indef. *kāv*, *kās*, *kāe*, etc.; pres. -fut. *kāva*, *kāsa*, *kāik*, etc.; stem *kā-*) 'to go, depart, disappear, be past, pass beyond, flow, (stomach) has diarrhoea'; *DED* 1195, 2006, 2030, 2037. The C and SDr. entries in (7b) were not united in *DED*, since, though they are related in meaning, we followed in *DED* very often the conservative policy of keeping apart verb stems related as identical roots with different derivative suffixes (= determinatives). However, in order to advance from the South and Central forms with *c-*/*s-* to the Northern forms with *k-* (*DED* 1195), it is necessary to recognize explicitly such inner derivation, since in the wide range of semantic development the Southern forms with *-l-* cover only a small part of the range that is covered by the Kuṛux form with *-l-*, and do not have the nuclear meaning 'to go.' As for the relationship of (7a) and (7b), it has been pointed out by Krishnamurti, *Telugu Verbal Bases*, §§1.212, 240, 253, that in C and SDr. there was an alternation of **ā* and **ē* after **c-*; he gave this material (**cār-*: **cēr-*) as one of his examples. That this extended to NDr. also is evidenced by this example, if and when it is recognized that these Northern forms with *k-* belong with the *c-* forms of the other languages. The Kur. verb *kā-*, *kāl-* : *ker-* is particularly nice evidence, since it presents both a wide semantic range and phonological details that belong to both (7a) and (7b). [*DED* 2312/*DEDR* 2814; *DED* 1195/*DEDR* 1419, *DED* 2006/*DEDR* 2430, *DED* 2030/*DEDR* 2460, *DED* 2037/*DEDR* 2470. *DEDR* continues *DED*'s conservative policy of separating material, some of which certainly and much other of which probably belong together, according to the arguments set forth in 7a and 7b. Several items have been added, notably in *DEDR* 2460 (**cār-*) the Telugu verb *tāru* 'to move about, wander, approach' and derivatives from it. Koṇḍa *sāŋ-* 'to go', entered in *DED* 2006, has to be deleted, as a wrong form.]

(8) Ta. *cā* (*cāv-*/*cākuv-*, *cett-*) 'to die'; ? *ceku* (*-tt-*) 'to kill'; Ma. *cāka* (*catt-*) 'to die'; To. *soy-* (*sot-*) id. (others than Todas); Ka. *sāy* (*sattu*) id.; Kod. *ca·ḷ-*[6] (*ca·v-*, *catt-*) id.; Tu. *saipini* id.; Te. *caccu* (*cā-*, *cāv-*) id.; *campu* 'to kill'; Pa. *cay-* (*cañ-*) 'to die'; Ga. (Oll.) *say-* (*sad-*, *san-*), (S) *cay-* id.; Go. *sai-* (*sās-*), (W) *sáy-*, (L) *hā-* id.; Koṇḍa *sā-* id.; Kui *sāv-* (*sāt-*) id.; Kuwi (F) *hai-* (*hat-*), (S) *hā-* id.; Kur. *khē'e-* (*kecc-*) id.; Malt. *key-* (*kec-*) id.; Br. *ka'-* (neg. *kas-*, past *kask-*) id.; *DED* 2002, *Kolami* 919 (but note corrections for that entry in *TPS* 1957.39, n. 1); add Kur. (Hahn) *khīū*, (Bleses) *khi'ū* 'mortal'. On the thesis of this paper (see below), the initials (*c-* : *k-*) are not a difficulty in the connection of NDr. with C and SDr., even though Kur. *kh-* (presumably an aspirated stop) remains unexplained; [see note at end of this paragraph]. It has been demonstrated elsewhere (*TPS* 1957.35-46, esp. 39) that the past stems of the NDr. verbs and the stem *cacc-* in Te. present parallel irregularities of morphology—an argument for the etymological connection. The chief difficulty, as Krishnamurti has demonstrated (*op. cit.*, pp. 96-7, §1.232) is in the vowels: C and SDr. have *ă* (Ta. *cett-*<**catt-*,

ceku<**caku*, according to Tolkāppiyam Eṟutt. 62, which teaches that after *c*- there is no occurrence of *a*), NDr. has *ĕ̄* (Br. *a* <**e* is unexceptionable);[7] for an attempted solution, see below. The To. form with *s*- must be a borrowing, probably from Badaga. [*DEDR* 2426, which adds Pe.-Maṇḍ. *hā*- 'to die'. —Occurrences of the aspirated stop *kh*- may be collected and discussed here. Pfeiffer notes and discusses variation between initial *k*- and *kh*- for one item. Item 402 (pp. 64-5, §2.1.1.1.2) unites *khap*- 'to cover exactly, etc.' (*DED* 1024/*DEDR* 1221) and *kapp*- 'to cover or press gently with the hand, etc.' (*DED* 1028/*DEDR* 1225), with the explanation that 'free allophones ... developed into contrasting phonemes; this process was paralleled by a differentiation of meaning..... a tendency to avoid homonymy'. He notes, of course, that in these forms the regular correspondence to PDr. **k*- should be *x*-. *DEDR* keeps the entries apart, but adds a reference to Pfeiffer's uniting of them.

[Item 750 (pp. 101-2, §2.2.1.1.1) lists *khal*- 'to dilute, mix with water or other liquid', which is cognate with PDr. **kal*- 'to mix' (*DED* 1092/*DEDR* 1299); *x*- is expected. Pfeiffer remarks: 'There is no doubt that there were intermediate stages in this development [PDr. **k*- >Kur. *x*-], and that these were realized as aspirated stops; the latter could be preserved and function as phonemes when the Kuṛ. phonemic system was enlarged by the aspirated stops borrowed from IA'. He finds 'influence of H[indi]' in dealing with item 754 (ibid.) *khopa*, (Hahn) *xoppa* 'chignon', which is connected (*DED* 1755/*DEDR* 2110) with Tamil *koppu*, Kannaḍa *koppu*, Gondi *kupar* 'chignon', Kui *kopa* 'coil of a woman's hair'; the small group of modern Indo-Aryan forms listed in Turner, *CDIAL* 3939, e.g. Hindi *khopā*, and derived by Turner from *DED* 1755, presumably represent the source of Kur. *kh*- in this word, whether it straightforwardly borrowed from Hindi (N.B. Malto is not recorded as having the word, which is against its being inherited from PDr.) or whether Kur. has this as an inherited word 'influenced' in its initial by the Hindi word. An example where *kh*- is found instead of *x*- is in *DED* 915/*DEDR* 1087: Tamil *kacaṅku* 'to be squeezed', *kacakku* 'to bruise between the fingers or hands, squeeze', Malayalam *kasaṅṅuka* 'to be squeezed', *kaśakka* 'to squeeze in hand', Kuṛux *khacnā* 'to squeeze soft matter into a compact mass by pressing, etc.'; *DED*, etc. query the inclusion of the Kuṛux item because of *kh*-, and Pfeiffer lists it (p. 178) under 'doubtful etymologies' (no. 12) since the phonetics are not clear. Considering the other instances of *kh*- listed above, it seems hardly necessary to query this etymology.

[Of Pfeiffer's suggestions for the origin of *kh*-, the latter, Indo-Aryan influence, cannot apply in the case of the 'die' word, since there is no Indo-Aryan form that might be involved (Marathi *khapṇẽ* 'to be consumed, die', in Turner, *CDIAL* 3655 *kṣapyatē*, is hardly in point). He may well be correct in his suggestion of an intermediate stage, preserved under the influence of the introduced IA *kh*-. But the problem as a whole has hardly reached a firm solution. If it is ever reached, it presumably will include also the pair in

item 408 (*DED* 1740/*DEDR* 2091), *xot-* 'to cut by striking', *kotg-* 'to peck at' (note Malto *kothk-* id.), with *x-* and *k-*; Pfeiffer has a cross-reference to item 402 apparently intending a comment similar to that made there.]

Some of these etymologies have been identified, or even discussed inconclusively, before. Burrow did not mention them in his paper on **k-*; in that on **c-* (p. 143) he listed the 'die' verbs (8) as preserving *c-/s-* in all the other languages, but showing *k-* (Kur. in part *kh-*) in NDr. His interpretation (in a footnote) was that the velar is original and that there is a 'special origin of *c-/s-* in a certain number of words' in C and SDr. Krishnamurti (*op. cit.*, p. 10, §1.19) writes of 'irregular palatalization ... before non-front vowels', identifying only a few examples and finding it unlikely (*op. cit.*, pp. 96-7, §1.232) that the NDr. *k-* forms of the verb 'die' belong with the palatal-initial forms of the rest of the family; his explanation seems to be identical with that of Burrow. E.H. Tuttle had already in *American Journal of Philology* 50.151-2 (1929) and *Dravidian Developments* (1930), p. 25, written of the retention of *k-* in the Northern 'die' words, and had found a special palatalizing element to explain *c-/s-* of the other languages; he relied heavily on a So·ra· (Munda) form, which he judged to be borrowed from Dravidian and to represent an intermediate stage. L.V. Ramaswami Aiyar, 'Initial fricatives and affricates of Dravidian', *Indian Antiquary* 62.141-58 (1933), in a small section on *x* (pp. 157-8) listed two of the relevant sets in part but made no progress towards a solution. His earlier paper, 'The *k*-dialects of Dravidian', *Educational Review* (Madras), 1931, presumably treated the problem; it has not been available, but it may be assumed that it progressed no further than the later paper.

If our own solution were to follow the line that scholars have so far taken, it would be to reconstruct **k-* as the initial phoneme and to posit, for as many of the instances as we decided the solution applied to, a palatalizing factor which produced *c-/s-* in the Central and Southern languages in most occurrences and which in the Northern languages failed to produce palatalization and at the same time inhibited spirantization to *x* (except in 5). In the Northern languages this factor could not have been lost until after other instances of **k-* had been spirantized. What the nature of the factor could be, is not evident, since it has not been preserved as an independent entity in any language. Nor can it be the vowel that follows the phoneme in question, since for any of the vowels in the aberrant instances there are contrasting instances with the regular development of **k-* in all languages. Such a solution, therefore, with its unidentified factor, cannot be satisfactorily economical, and should only be kept in reserve as a possibility if all else fails.

Since it seems usually to be taken for granted that a PDr. **c-* is not the solution, all that would seem left is to postulate a phoneme other than either **k-* or **c-*.

But is the assumption correct that PDr. **c-* cannot be the solution? To test this, it is necessary to tabulate the occurrences of **c-* in *DED*, with

reference to their contexts, the most obvious contexts being in this instance the following vowels. When this is done, the outlines of a solution emerge.

Of the groups of etyma, (1) to (4) have *u* or *ū* following the initial consonant phoneme. It would be tempting to assume that PDr. **c-*, when followed by *u* or *ū*, became *k-* in NDr.

There are, however, counter-examples. NDr. and the other languages show *c-* before *u* or *ū* in several groups of etyma.[8] One of these, *DED* 2235, is a group that may be called 'onomatopoetic,' in which divergence from normal phonemic correspondences may be expected. The words are representative of noisy drinking of liquids or of noisy inhalation, e.g. Ka. *suṟuku* 'the sound produced by supping', Kur. *surp-* 'to drink noisily', *surkha'ā-* 'to sniff up' (only Kur. is found among the Northern languages). A second group, *DED* 2154b, is another which may be suspected of showing the same disturbing factor of 'onomatopoeia', e.g. Ta. *cūppu* 'to suck', *cūmpu* 'to suck, fondle with the lips', Malt. *cumq-* 'to kiss', Br. *cūp-* 'to suck' (with which Bray compares Jaṭkī and Sindhi *cūp-*; no pertinent Modern Indo-Aryan forms seem otherwise to be found).

There are also five groups of etyma in which the Northern languages have *c-* or *j-* before *u* or *ū*, but in which there is no representation at all of any except Northern languages (*DED* 2182, 2203, 2217, 2243, 2244 all showing only Kur. and Malt). These can hardly be used as evidence of anything Proto-Dravidian.

In two groups, the Northern languages have *c-* before *u*, but *u* is in these derived from **o* or **ō*: *DED* 2324 (Br. *cuṭṭ-* 'to drip': Ta. *coṭṭu*), and 2353 (Br. *curr-* 'to flow, gush': Ta. *cōr;* in this group all three languages are represented). Because of these two groups, it would be necessary to refine our statement to the form: PDr. **c-* is represented by NDr. *k-* when the following PDr. vowel is **u* or *ū*.[9] Another group may possibly belong here: Ta. *cuval* 'nape of the neck, back,' *cekil* 'upper part of the shoulders', Ka. *tegal* 'shoulder', Kui *sukoṛi*, *sukoli* 'shoulder-blade', Br. *cugh* 'nape of the neck' (*DED* 2221, without the Br. item, though Bray had noted it with a query). Ta. *cuval* cannot lead to a decision between **u* and **o* in the first syllable when followed by *a* in the second (Kui is probably too uncertain to be used as evidence); Ta. *cekil* may well be evidence for an original **o*.

One more etymology remains, *DED* 2245: Kuwi (F) *hūc-* 'to put on clothes', Malt. *cuy-* (*cúc-*) 'to put on, dress'. This, with only two languages represented, hardly seems sufficiently weighty to cause abandonment of an attractive phonemic correspondence based on four groups of etyma with numerous languages represented in each. [But see now *DEDR* 2715 and 2827, for resolution of this problem.]

For the four attractively convincing etymologies (1) to (4) I would, then, set up PDr. **c-* and find the conditioning factor for the NDr. velar stop in the following PDr. **u* or **ū*. Little qualification is needed because of the counter-examples, though it must be kept in mind that there are a few,

though weak, ones to be taken into account. More adequate material for NDr. and intensive study based on it will aid to solve the outstanding problems.

The remaining aberrant instances, (5) to (8), could be grouped together as also showing a consonant correspondance NDr. **k-*, C and SDr. **c-* (*ergo* PDr. **c-*) before **e* and **ē*, and in fact there are no counter-examples at all, i.e. of Northern *c-* corresponding to *c-*/*s-* of the other languages before these two vowels.

The vowel **e* would be the only possible choice for (5), since before *i* and *o* there are undoubted instances of *c-* in the Northern languages. The disturbing factor here is *x-* in Kur. and *q-* in Malt. rather than *k-*. In (6) it is impossible to tell whether the vowel in question is **e* or *a*; to decide on **e* for the sake of establishing a correspondence would seem to be really viciously circular argument.

As between (7a) and (7b), there seem to be no criteria for judging between **ā* and **ē* as more original. That there was variation between these two vowels after **c-* already in PDr. seems incontestable. But in this instance, evidence is for both **ē* and **ā*, and to decide for **ē* because it is the only way to save the phonetic correspondence **c-*: Northern *k-*, is also vicious. It is, in fact, the only way, since three *DED* entries seem to present fairly good evidence for **c-*: Northern **c-* before *ā*. These are *DED* 2007, in which Malt. *cáql-* 'to stretch the legs apart' goes well enough with such forms as Ka. *cācu* 'to stretch out', *jāgisu* 'to stretch or raise the body to its full extent', Te. *cā̃gu* 'to be stretched or extended; extend', Kui *sāsp-* (*sāst-*) 'to stretch out,'; *DED* 2013, Ma. *cāṭuka* 'to leap', *cāṭṭam* 'a leap', Kur. *caṭax-* 'to stride, jump over'; *DED* 2357, Ta. *cōlai* 'garden, grove', Ko. *te·l* 'forest',[10] To *twa·s̲* 'grove, thicket', Kur. *cālā* 'grove, sacred grove', Malt. *cále* 'grove'.

Group (8), the 'die' words, as we have already discovered, have a difficulty in the vowels, NDr. showing *e* and *ē* and the other languages *a* and *ā*. We could attempt to resolve this by combining several approximate statements of phonetic developments and correspondences that have been noted, especially by Krishnamurti, in other connections. We have already, with reference to (7), noted that after **c-* there is alternation (or neutralization) of **ā* and **ē*. Krishnamurti has also suggested (*op. cit.*, pp. 124-5, §§1.297-9) that, except for **a* and **ā*, the vowels showed no contrast of quantity before *y* in PDr. The combination of these two statements would allow us to set up **c$\breve{e}$y* as the chronologically earliest form for these verbs, with a later alternation of these non-contrastive alternants to **cāy* and **cay*. NDr. would have generalized the forms with *ē* and *e*, the remaining languages those with *ā* and *a*; loss of *y* before consonants would be seen in all languages.[11] All the forms would be explicable in these terms, if we allow **c[$\breve{e}$>* NDr. *k-*. There would still remain unexplained Kur. *kh-* in some forms.

This, then, gives us, tentatively at least, one occurrence of **c[$\breve{e}$->* NDr.

k-, viz. that in the last paragraph. Even more tentatively we may build on this foundation and decide etymologies (5) to (7) in the same way, a group of three very uncertain etymologies being combined with one that is somewhat less uncertain to allow a very much qualified statement of a correspondence *c[$\breve{e}$>NDr. *k*-, which may be set beside the fairly certain one *c[$\breve{u}$> NDr. *k*-.[12]

[Another instance of *c- >*k*- before *e* has been found. *DED* 1626/*DEDR* 1955: Tamil *ceppu* 'to say, speak, tell', Malayalam *ceppu-* 'to say, (dog) growls', Telugu *ceppu* 'to say, tell, scold, reprove', Kuṛux *keb-* (*kepp-*) 'to scold, lecture'. This entry has been put in the *k*- section, since the Southern languages could have *c*- from **k*- before front vowel; it was neglected that in Kuṛux **k*- before *e* should be represented by *x*-. If our thesis is correct, the entry represents PDr. **cep*- rather than **kep*-, and should have been included in the *c*- section. It is to be noted that Pfeiffer (no. 406) lists this word under **k*-, and remarks on the contrast with *xebda* 'ear', as if this were an instance of avoidance of homonymy.]

[The relevant section (pp. 756-7) of my review of Pfeiffer follows. It should be noted that he treats each item separately and does not unite his discussion in one place; his items: pp. 66-7, nos. 409, 410, 411; p. 119, no. 989; pp. 177-8, App. III, no. 11; pp. 187-9, App. IV, nos. 64, 74.]

"The problem of certain etymological groups, for which it has been stated that NDr. has *k*-, instead of Kur. Br. *x*- and Malto *q*-, and where the rest of Dravidian has *c*-, has engaged numerous scholars. The vowels following are *$\breve{u}$ and *$\breve{e}$. Some have gone so far in dealing with these as to set up an otherwise non-occurring PDr. phoneme different from both **k* and **c*. I attempted (1961) to derive the non-spirantized NDr. *k*- from PDr. **c*- before these vowels. Part of the problem should be stated in other terms now that Pf has made it clear that PDr. **k*- remains as Kuṛux-Malto *k*- before *$\breve{u}$* as well as before *$\breve{i}$*; i.e., in Kuṛux-Malto, **k*- and the initial phoneme of these items have coalesced before *$\breve{u}$. Two of the three NDr. etymologies with which Pf is concerned (DED 2204, 2211 as against 2183), plus one other which has no Kuṛux etymon (DED 2213), have Brahui *k*- instead of the expected *x*-; the Kuṛux-Malto statement will not do for Brahui. The problem of what PDr. had still remains. Pf rejects my solution, in the main by noting that for DED 2204 and 2211 there are scattered forms with *k*- in SDr. and CDr.; this is true of 2213 also, but not of 2183. His solution, then, is to find a PDr. alternation between **k*- and **c*- in these groups. This merely pushes the problem back into pre-Dravidian. I still prefer my solution, which I think is phonologically possible, i.e. **c*- before the high back vowel is backed to *k*-.

"My treatment of occurrence with *$\breve{e}$ has become less convincing now that Pf has been able to add an example of **c*- remaining *c*- in this environment: (DED 2293) Kuṛ. *cēkhel* 'greens', Malto *ceglu* 'small branches': Tamil *ceṛi* 'to grow well (as vegetation)'. However, my three problematic etymologies still remain. For the NDr. verbs meaning 'to go' (DED 2002)—Kuṛ. *kā-*

(pret. *ker*-, fut. *kāl*-), Malt. *kāl*-, Br. *kā*- (a suppletive stem to *hin*-)—I could provide etyma in the other languages only with considerable difficulty, both phonologically and semantically; Pf puts this group in his appendix which includes only NDr. items (187-8, no. 64), though he again toys with the suggestion of PDr. alternation of **k*-/**c*- (though followed by -*ā*- rather than -*ē*-). This double-barreled solution is offered again for the verb 'to die' (DED 2002): Kuṛ. *khē'enā* (Pf *khe'*- [n.b. *kh*-]; past *kecc*-), Malt. *key*- (past *kec*-), Br. *kah*- (pret. *kas-k*-, neg. *kas*-; **e*> Br. *a* is a regular possibility). The verb is listed among those with only NDr. cognates (188-9, no. 74), but PDr. **k*-/**c*- is suggested in order to relate these verbs to the corresponding Dr. verbs with **c*-; the morphological features that all these 'die' verbs share make one very reluctant to separate off the NDr. items. The recording of *xē*- for Kuṛux in Grierson (1906:426) is taken by Pf to be dialectal. This latter form must certainly be taken into account in considering DED 2285, where Kuṛ *xerr*-, Malt. *qer*- 'to insert' are grouped with SDr. and CDr. forms with **c*-. Finally, the 'winnow' words (DED 1679)—Kuṛ. *kẽ̃s*- 'to winnow', *kẽ̃t^{e}r* 'winnowing basket' (and Malto cognates)—have cognates with **k*- in SDr. (there is no etymon in Tamil, and Malayalam with *c*- is ambiguous as to PDr. **k*- or **c*-) and in the Kolami-Parji branch of CDr., but with **c*- in the remainder of CDr., Telugu with *c*- being as ambiguous as Malayalam; here especially, PDr. **k*-/**c*- is attractive (65, no. 407). But in all these problematic cases, positing an alternative **k*-/**c*- in PDr. does not explain why **k*- fails to show the normal NDr. developments, and the problem still remains."

NOTES

*[The basic thesis of this paper has been abandoned in the 1988 paper on 'Proto-Dravidian **c*-', paragraphs 24-26 and following (see below in this volume). The 1961 paper is worth reprinting, with additional data in [ ], because of its almost complete inaccessibility. The language name Kuṛux replaces the older writing with underlined *kh*. This latter transcription in Kuṛux and Brahui data is replaced by *x* throughout, as in *DEDR*. References to *DEDR* are added generally throughout.—There has now to be much reference to the following works: Martin Pfeiffer, *Elements of Kuṛux Historical Phonology* (Indologia Berolinensis, 3; Leiden: E.J. Brill, 1972); P.S. Subrahmanyam, *Dravidian Comparative Phonology* (Annamalai University, Department of Linguistics, 74; Annamalainagar: Annamalai University, 1983). The relevant section of my review of Pfeiffer (*Language* 50.755-8 [1974]) is added after this paper.]

1. The sources are to be found in Burrow and Emeneau, *A Dravidian Etymological Dictionary*, pp. xxv-xxvi; this work is referred to hereafter as *DED*. I use the abbreviations of the language names that were used in *DED*.

Burrow was careful (and wise) in his article not to make the phonetic interpretation. For his purpose the fairly consistent transcriptions of the sources guaranteed the phonemic (i. e. contrastive) status of Kur. *kh*, Malt. *q*, and Br. *kh*, and allowed the statement of phonemic correspondences; phonetic definition was unnecessary. For Brahui there is no doubt about the phonetics; see Bray's description in terms of German and Scotch *ch* in *The Brahui Language*, p. 28 (1909) and my article in *BSOS* 8.981-3 (1935-7), in which I described the

sound as a back velar spirant, without any identifiable positional allomorphs; Bray's<u>kh</u> represents [*x*]. For Kuru<u>kh</u> there can be no doubt either. Grignard, who provides the most voluminous material on the language, gives an impressionistic account of <u>*kh*</u> which cannot yield a clear phonetic value. However, Hahn in his *Kuru<u>kh</u> Grammar*, p. 3, equates it with German *ich*, Greek (i.e. presumably Modern Greek) *x*, and the *ch* in Scotch *loch*; as a German speaker he could hardly have been mistaken, and we may take [*x*] as the value. Bleses, in *An English-Uraon Dictionary* (1956), based on unpublished material compiled by Grignard, describes <u>*kh*</u> as 'a deep guttural' with the Greek and Scotch analogues given by Hahn (presumably he follows Hahn). For Malto *q* we have in print only an impressionistic description given by Droese, Vocabulary, p. ii (1884): '*k* uttered with the root of the tongue pressed back on the throat, so as to check the voice gently and to occasion a clinking sound' (Konow in *LSI* suggested that 'clinking' might be emended to 'clicking'). L.V. Ramaswami Aiyar interpreted this as [*x*] in *Indian Antiquary* 62.157-8 (1933), as well as presumably in other places, though he had uttered a warning earlier (*Quarterly Journal of the Mythic Society* 21.238 (1930-1)) that Droese's description does not seem to be of something identical with the Brahui and Kuru<u>kh</u> sounds. Bray in his second volume, p. 18, thought that Arabic or Urdu *qaf* might be meant. Tuttle also transcribed Malto *q* as *x* (e.g. *Dravidian Developments*, p. 24 [1930]). This in fact seemed with hardly an exception to be the usual assumption, and Burrow and I in *DED*, p. xxix, said *tout court* that [*x*] is indicated for all three languages, being seduced for Malto by the etymological equivalence. Burrow now informs me that during their fieldtrip in 1957-8, he and Sri Sudhibhushan Bhattacharya heard Malto, and that *q* is not [*x*], but is the same as Semitic *q*. Does this mean that Malto has two contrasting stop phonemes, /*k*/ and /*q*/? Certainly Droese gives such spelling pairs as *keytre* 'to let die': *qeytre* 'to boil or make hot'. Fieldwork on this language is extremely desirable. [It is now clear that Malto *q* is a voiceless uvular stop, in contrast with the voiceless velar stop *k*; so stated in *DEDR*, p. xli. —It has been demonstrated by Pfeiffer, pp. 149-50, that PDr. **k*- is represented by *k*- in Kuṛux and Malto before **u* and **ū*, as well as before **i* and **ī*; before other PDr. vowels **k*-$>$Kuṛux *x*-, Malto *q*-. In Brahui it is only before **i* and **ī* that **k*-$>$*k*-; before other vowels **k*-$>$*x*-.]

2. E.g. Br. *xīsun* 'red', in which Br. *ī* somehow represents *ē* of the other languages; Br. *karrak* 'bank, shore' (: Ta. *karai*, etc.; *DED* marks the Br. entry with a query). Burrow also gave as a word of possible Dravidian origin Br. *kallar* 'saline soil': Ta. *kaḷar* id. However, he expressed doubt since Balochi, Jaṭkī, and Sindhi have similar forms. It is now even more doubtful since we have in *DED* 1145: Ta. *kaṛi* 'backwater, shallow sea-waters, salt river, marsh, saltpan', *kaḷar* 'saline soil, bog', *kaḷari* 'saline soil,' Ma. *kaṛi* 'sea-arm, ebbing brook, salt marsh', Ko. *kayḷ-/kaḷc-* (*kaḷc-*) 'to taste salty', *kayḷkc-*, *kaḷcgc-* 'to oversalt', Te. *krayya* 'canal'. In spite of the age of Ta. *kaḷar* (Kuṛaḷ.), it seems probable that it is secondary to **kaṛ-*, which is represented by Ta. Ma. Te., and in all probability by Ko. since the basic verb from **kaḷi-* in the latter corresponds in derivative suffix *-i-* to the Ta. noun *kaṛi*. The Brahui form has not been included in *DED* 1145, since PDr. **ṛ*$>$Br. *r*. The only way to save the formerly suggested Ta. -Br. etymology would be to separate the *ḷ-* forms from the *r-* forms completely. Br. initial *k-* would then have to be explained as Burrow formerly did; Bal. etc. borrowed from Brahui or some other Dr. language of the area before PDr. **k*-$>$ PNDr. **x*-, and Br. then reborrowed after the change was completed. In fact, so Burrow explained Br. *karrak* and whatever other exceptions of this kind there may be, as reborrowings of Dr. material earlier borrowed by Indo-Aryan. [On *kallar*, see now a statement along these lines in *DEDR* 1359.]

3. *h-* of some Gondi dialects and of Kuwi is dialectal rather than conditioned. Pierre Meile (*Journal asiatique* 234.87-9 [1943-5]), followed by Krishnamurti, thought that there were in Brahui examples of initial *h-* for PDr. **c-*. Unfortunately, he was relying on too scanty etymological materials, and he failed to take note of my report on Brahui phonetics (*BSOS* 8.981-3), which shows that Br. *h*, as written by Bray, is a glottal stop ['], except in a

very few words borrowed from Modern Indo-Iranian. I shall demonstrate elsewhere that Br. *h-* is never to be taken account of in establishing Dravidian etymologies. I would note here that, in spite of the wavering in *DED*, Br. *hunn-* (*hur-*), *unn-* (*ur-*) 'to look, look at, look for, wait for, consider', is to be classed with *DED* 625, Ta. *uṉṉu* 'to think, consider,' etc. (especially note Ka. *uṅkisu* 'to consider, observe, look at') and *DED* 610, Ta. *uṟu* 'to pass in one's mind, think', etc., and not with *DED* 2257, Ta. *cūr-* 'to deliberate, consider, know', Te. *cūcu* (*cūḍ-*) 'to see, observe', etc. [See 'New Brahui etymologies', for the dialectal variation in phonetics and for etymological treatment.]

4. Krishnamurti, *Telugu Verbal Bases*, s.v., judges that $\tilde{u}$ is unlikely on comparative grounds, and reports that the evidence for it is not unquestionable, except for one 15th century passage.

5. For the etymology of this form, see my treatment which will be published elsewhere. [See 'New Brahui etymologies', sect. 3, and *DEDR* 809.]

6. Kod. *-ḷ-* in this verb, E.H. Tuttle suggested in *American Journal of Philology* 50.152 (1929), is on the analogy of *ba·ḷ-* '(child) lives, rule' (*DED* 4402: *ba·ḷ-* [*ba·v-*, *badd-*]). Other verbs may well have contributed to the pattern: *ë·ḷ-* (*ë·v-*, *ëdd-*) 'to get up' (*DED* 723); *bu·-* (*bu·v-*, *budd-*) 'to fall' (*DED* 4457); *u·ḷ-* (*upp-*, *utt-*) 'to plow' (*DED* 592); *ï·ḷ-* (*ï·p-*, *ï·t-*) 'to drag' (*DED* 427); *o·ḷ-* (*o·p-*, *o·t-*) 'to have sexual intercourse with' (*DED* 904); *pu·ḷ-* (*pu·p-*, *pu·t-*) 'to bury' (*DED* 3588). [See 'The South Dravidian languages', §3.14.]

7. For details of **e*>Br. *a*, see [the treatment in 'Brahui vowels'].

8. Another group would appear from *DED* 2219 to be in point: Pa. *juva* 'a well', Ga. (S) *sūve* id., Go. (M) *cuvā* id., Malt. *cuwa* id. It is, however, as was not realized before, borrowed from Modern Indo-Aryan; cf. Hindi *co'ā(n)*, *cu'ān* 'small pit into which water drains, cistern', *cohā* 'a small well', *coyā* 'a well of water in a dry river bed, spring, rivulet'. A form nearer to those in the Dravidian languages might be found in Bihari or Oriya, but no sources are available. [See *DEDR* App. 38.]

9. For **k*[$\breve{u}$, see *DED* 1429, 1432, 1440, 1487, 1496, 1501, 1510, 1527, 1579; there are a few aberrancies and uncertainties which need not be listed here. Br. *kun-* 'to eat, drink' has been included in the widely extended family of Tamil *uṇ* (*DED* 516). Initial *k-* causes difficulty (L.V. Ramaswami Aiyar, *Indian Historical Quarterly* 12.258-69 [1936], still found it 'inexplicable'). It can hardly be derived from contamination with the *kuṭi* 'drink' family (*DED* 1378), since such a *k-* should yield Br. *x-*. Tuttle was undoubtedly on the right track when (*JAOS* 56.356 [1936]) he spoke of a blend with Singhalese *ka-*. Contamination with the modern Indo-Aryan family of words typified by Hindi *khā-* 'to eat, drink' will yield *k-* (loss of aspiration is the end result of complete assimilation to the Brahui phonemic system); the proximate source is Sindhi *khāinu* (Turner, s.v. *khānu*).

10. I shall demonstrate elsewhere that **ō*>Ko. *ē* in this word is part of a wider set of statements of Kota vowel development; [see 'A Kota vowel shift'. PDr. has **ō*; Pfeiffer's attempt (p. 24, no. 113) to derive these words from **cav-V-l-* is apparently due to misinterpretation of Toda *wa·*, which is from **ō*; *DEDR* 2891.]

11. Whether the relations of $\breve{a}$ and $\breve{e}$ can be reconciled with those of *ā* and *ē* in (7) and of *ay* and *ey* otherwise, I leave to detailed study of this whole question in the future.

12. It would be irrelevant to discuss in this connection Br. *kann-* (*ka-*, *kar-*, *kē-*) 'to do, make': Ta. *cey*, Ka. *key*, *gey*, etc. (*DED* 1628). This is an instance of PDr. **k-*; this Brahui verb [is discussed in 'Brahui n/r verbs'].

Chapter II

BRAHUI DEMONSTRATIVE PRONOUNS*

The three demonstrative pronouns of Brahui present etymological problems.

The commonest Dravidian demonstrative bases are *i*/*ī*, the nearer demonstrative, and *a*/*ā*, the further demonstrative. It is not necessary to present the etymologies in detail here; *see* T. Burrow and M.B. Emeneau, *A Dravidian Etymological Dictionary*, entries 351 and 1. It is enough to say that all the Dravidian languages with the exception of Brahui have cognates that are very obvious, with no phonological difficulties about the base vowels.

In addition, a number of the languages has a base *u*/*ū* which is defined as the intermediate demonstrative on the evidence of Old Tamil and Old Kannaḍa.[1] Other languages have forms of this base with this meaning, namely, Kuwi (Fitzgerald) and Kurukh (base *hu-*). Still others have the base with nearer demonstrative meaning: Kota has *u·n*, *u·ḷ*, *u·r* 'he, she, they (persons)' which seem to be in variation with forms of the base *i*;[2] in Tulu *undu*, *undekuḷu* 'this thing, these things' are given by Brigel and Männer for the nearer demonstrative (*undu* and *indu* being alternative forms); Parji has *ūd*, *ūr* 'this (male), these (males)' instead of forms from the *i* base, although forms of this latter base otherwise occur (*id*, *iv* 'this [female or thing], these [females or things]'). This coalescence with the nearer demonstrative base is secondary. Kui on the other hand has a base *o* as the most remote of its four demonstratives; Kuwi (Schulze) has *hu-* with the same meaning as Kui *o*. Stray forms are Malto *uthi* 'look there!' and Malayalam *umpar* 'gods' (cf. Tamil *umpar* 'elevated spot, height, sky, celestial world, gods; yonder aloft').

Table 1

Dravidian demonstrative bases

i		*a*		Malayalam, Toda, Koḍagu, Kolami-Naiki, Gadba, Gondi, Konḍa, Malto
i	*u*	*a*		Tamil, Kannaḍa, Kuwi (Fitzgerald), Kurukh
i	*u*	*a*		Kota, Tulu, Parji
i	*e*	*a*	*o*	Kui
i	*e* *he*		*hu*	Kuwi (Schulze)
dā	*õ*[3]	*ē*		Brahui

**Journal of the Asiatic Society* (Bengal), 3.1-5 (1961).

Another base is *e*/*ē* which in Kui is the nearest of the three non-proximate demonstratives (viz. *e*, *a*, *o*); in Kuwi (Schulze) *e* is equivalent to Kui *e*, and *he* is the middle one of the three non-proximate demonstratives (viz. *e*, *he*, *hu*).

The first Brahui problem is that of the non-proximate demonstratives. *ē* would seem prima facie to be related to Kui-Kuwi *e*. However, the Brahui series seems usually to have been compared with the more general Dravidian *i u a* series alone. When this is done, *ē* is equated on the ground of meaning with *a*, and phonology is either neglected, or it is taken for granted that **ā* (the long form of base) > Br. *ē* (so Bray, *Vocabulary*, s.v.). In fact, a number of good etymologies show **ā* > Br. *ā* (entries 333, 1192, 1195, 1197, 1219, 3370, 4355, 4385). One good one shows **ā* > Br. *ē*, viz. the reflexive pronoun (**tān* > Br. *tēn*; entry 2612). The interrogative pronoun *dēr* is usually compared with **yā-*, the base of the interrogative, but this pronoun in a number of languages has *ē*, and it seems probable that *y* determines the change *ā* > *ē*.[4] The balance of the evidence being thus, it seems best to proceed from the obvious phonology: **ē* > Br. *ē* (cf. entries 769, 2856, 3627, 4552). This of course leads back to the prima facie etymology with Kui-Kuwi *e*. The Kui series (*i e a o*), moreover, in itself is possible evidence for a PDr. series involving both *e* and *a*. If phonologically Br. *ē* is < **ē* rather than from **ā*, then it combines with Kui *e* to make it almost necessary to set up for PDr. a demonstrative series that contains both **e* and **a*. The basic assumption here is, of course, that Brahui and Kui are not in general closely related, and that coincidences of this kind are independent retentions of PDr. phenomena.

Certainly Kui *o* and Brahui *ō* should prima facie go together. The vocalic phonology is not yet well understood, but until and unless we find contradictory evidence from a complete investigation of the vowels of these two languages, there is nothing to prevent us supposing that these bases go phonologically with the base *u* of the other languages. Kuwi, closely related to Kui, has *u*, and, though Fitzgerald's and Schulze's Kuwi accounts are inexact phonetically and not to be trusted too far, they agree here on *u*; Kui *o* then can be assumed for the moment to be secondary to *u*. The three accounts of Kui-Kuwi—Kui *i e a o*, Kuwi (Schulze) *i e he hu*, Kuwi (Fitzgerald) *i u a*—are so diverse in content and order that the only sure points to be reconstructed for Kui-Kuwi (using our prior conclusions) are a series with *i* as nearer demonstrative, and the non-proximate demonstratives *e a o*. No order can be reconstructed for the whole series if Fitzgerald's account can be taken at its face value. It points to a pre-Kui-Kuwi with the same order **u *a* that is found in Tamil, Kannaḍa, and Kurukh. On the basis of Kui, Schulze's Kuwi, and Brahui we have decided that *e* must be added to the PDr. series. Kui-Kuwi should have *e* between *i* and *u*/*o*. Winfield says (*Grammar*, p. 43) that *a* is practically synonymous with *e* and is not used so frequently as the other demonstratives. This might well be an indication that Kui and Schulze's Kuwi shared a shift of order from *e u*/*o a* to *e a u*/*o*, and that *a* has been lost in Schulze's Kuwi by the same process that is apparently proceeding in Kui.

If this tentative placing of *e* in Kui-Kuwi before *a* and *u/o* is correct, it can hardly be assumed that it is PDr., for Brahui shows the reverse order *ō ē*. We cannot in fact with this much evidence know where to place **e* in the series in PDr. I attempted,[5] successfully I think, to demonstrate that in one structural feature Kui preserved a PDr. archaism. If that is correct, perhaps Kui has preserved another archaism in its retention of **e* and in its placing of it before **a* and **u/o* (though it clearly has reversed the latter two). But such an argument has little cogency, and I should do no more than mention it.

Discussion of the first Brahui problem then results in (1) an equation of *ē* with Kui-Kuwi *e*, (2) an equation of *ō* with the *u* that is found in a wide spread of languages and the *o* of Kui, (3) the hypothesis that both bases are PDr., and (4) uncertainty as to whether the Kui-Kuwi order *e u/o* or the Brahui order *ō ē* represents the PDr. order.[5a]

Brahui has as nearer demonstrative a base *dā-*. The next problem is whether and how to fit this etymologically into the PDr. series **i* (**e* **u*) **a*. Edwin Tuttle (*BSOS*, 4.777 [1928]) thought that *dā-* was borrowed from 'Afghan *dā*', i.e. the Pashto demonstrative base *da-*. Bray (*Vocabulary*, s.v.) did not admit this, and on the whole the historical probabilities seem against it, since the Brahuis have not, so far as can be judged linguistically or historically, been in as close contact with Pashto-speakers as with speakers of Sindhi or Balochi.

Generally, *dā-* has been equated with **i*, on grounds of meaning. Bray writes (*Vocabulary*, s.v.): '*ā*<*a*<*i*, cf. *ar-* and Drav. *ir-* to be, *han-* and Drav. *in-* sweet, etc....; *d-* is from the on-glide, *d*<*j*<*y*, cf. *dēr*; the change was poss. affected by the final consonant in the full form *dād*, and also but less prob. by Psht. *dā*.' Of the two etymologies given to support the phonology of the vowels, Br. *ar-* 'to be' (*anning*) is cognate with **ā-* 'to become, be' (entry 282) rather than with **ir-* 'to exist, live, sit down' (entry 407). The other, *han-* 'sweet': Tamil *iṉ-*, is the only plausible etymology which involves Br. *a*<**i*. Certainly all the Tamil forms, e.g. *iṉpam*, *iṉpu* 'sweetness', *iṉi* 'to be sweet, pleasant', etc., as well as Kannaḍa *in-*, *impu*, *imbu*, *immu* 'sweetness. pleasantness', Telugu *incu* 'to be agreeable', n. 'sugarcane', *indu* 'to be tasty, agreeable', *impu* 'sweetness, agreeableness', call for PDr. **in-*. However, Telugu *emme* 'beauty', Kurukh *embā* 'a taste; pleasant to the taste', Malto *embe* 'sweetness', *emb-embre* 'to be sweetish', *embre* 'to get a taste', require PDr. **en-*, if they are to be connected at all with the **in-* words. That is, there would be in this group of etyma a PDr. alternation *i*~*e*, which is not yet explained, but to which there are parallels. There are several clear Br. etymologies that show **e*>Br. *a* (entries 710, 1645, 3608, 4234; probably 723, 2002, 3109). Then, Br. *han-* 'sweet' may belong with regular phonology with **en-* rather than with **in-*; this yields an expected grouping of the northern languages, Brahui, Kurukh, and Malto. The result of this examination is that for **i*>Br. *a* there are no clear etymologies, nor are any to be found for **ī*>

Br. *ā*. Phonologically, then, the demonstrative *dā-* does not go with the base **i-*, quite apart from the question of the initial *d-*.

Considering that on the one hand there is nothing in the Brahui series of demonstratives (*dā-*, *ō-*, *ē-*) so far identified with *a-* of the general Dravidian series, and that on the other hand it is already possible that there has been a shift of meaning between *ō-* and *ē-*, it is possible that *dā-* should be equated with the phonologically obvious **a-*, in spite of the meaning. Etymologies have been referred to above in which Br. *ā*<**ā*; numerous etymologies show Br. *a*<**a*.

With the vowel satisfactorily taken care of, it remains to discuss initial *d-*. It has been suggested for a number of words in which Brahui has an unexpected initial *d*, that it is an on-glide originating from a *y* through the series *y*>*j* >*d*. This is Bray's explanation for *dā-* already quoted, and *d-* in this demonstrative is compared with the *d-* in the interrogative *dēr* (: Tamil *yār*, *ār*, etc.).[6] Burrow discussed the matter in the article referred to in footnote 4. He pointed out that the theory of an on-glide for the Brahui words in question is made less likely by the consideration, which must undoubtedly be taken into account, that the five words with unexpected initial *d* which he cited, all have etyma (and PDr. reconstructions) with initial *n*, or in one instance *ñ*:

Br. *ditar* 'blood': Tamil *neyttōr*, Kota *netr*, Toda *nets̲ xar̲* (*kar̲* 'juice'), Kannaḍa *nettar*, Koḍagu *netta*, Tulu *netteru*, Telugu *netturu*, Kolami *netur* (? *nettur*), Naiki *nettur*, Parji *netir*, Gaḍba (S) *nettūr*, Gondi (Trench) *natter*, (Maṛia) *netur*, (Adilabad) *nettur*, Kui *nederi*, Kuwi (Fitzgerald) *netori* (entry 3106);

Br. *dīr* 'water': PDr. **nīr* (entry 3057; also **ir*);

Br. *dē* 'sun': Tamil *ñāyiṟu*, *nāyiṟu*, Malayalam *ñāyiṟu*, *ñāyaṟu*, *ñāṟu*, Toda *nö·r̲*, Kannaḍa *nēsar̲*, Tulu *nesuru*,? Malto *nīṛu* (entry 2371);

Br. *dūī* 'tongue': Tamil-Malayalam *nā, nāvu, nākku,* Kota *na·lg, na·v,* Toda *no·f*, Kannaḍa *nālage*, *nālige*, Koḍagu *na·vu*, Tulu *nālăyi*, Telugu *nālika*, *nāl(u)ka,* Kolami-Naiki *na·lka*, Parji *nevă̄ḍ*, Gaḍba (011.) *nāŋ*, (S) *nāngu* (entry 3009; very problematical);

Br. *dēr* 'who?': Kurukh *nē* 'who (sg.)?', Malto *nére*(*h*), *néri*(*th*)/*né*(*th*), *nérer* 'which man, which woman, which persons?' (entry 4228; this is Burrow's suggestion of the closer etyma, originating from *yār*/*yēr*, *ār*/*ēr* by 'prothetic *n*').

To these I would now add another, which seems certain:

Br. *darō* 'yesterday': Tamil *nerunal*, *nerunai*, *neṉṉal* id., *nēṟṟu* id., 'lately, recently', Malayalam *innalē* 'yesterday', Kota *ne·r* (oblique stem *ne·ṯ*-) id., *mine·r* 'any day before yesterday', Toda *ïne·r̲* 'yesterday', *mune·r̲* 'day before yesterday', Kannaḍa *ninne* 'yesterday, time recently passed', Koḍagu *ninna·ndï* 'yesterday',[7] Telugu *ninna* id., Gondi *ninnē* (entry 3109; on **e*>Br. *a*, see above).

Even allowing that only four of these six etymologies are obviously convincing (i.e. the first two and the last two), the coincidence of occurrence

of *d-* and **n-* is striking and probably significant. Can this help at all with the demonstrative *dā-*? A piece of evidence that has not been adduced by anyone so far in discussions on it may provide the *n*-form that would make it unnecessary to look further. In Malto it is reported by Droese[8] that beside the demonstratives *í* 'this' and *á* 'that' there is an extended form of the further demonstrative, *ná*, which is 'generally employed when the party referred to is present' and which he translates 'that one (here)'. Here we have the form with *n-* that will link Br. *dā-* with **a/ā*, and we have also a meaning that provides a link between 'that' and 'this', viz. 'that remoter in place, but present'.

Malto is one of the two northern languages (Kurukh, Malto) which show some indications of closer relationship with Brahui than do the southern and central languages. Both of these northern languages give evidence for *n-* in the interrogative pronoun. Malto now gives evidence for *n-* in the *a-* demonstrative. We could wish for more modern evidence for Malto than is provided by Droese, but there seems to be no doubt of the facts here. Consequently, I feel that the problem of Br. *dā-* has been solved up to a point. It belongs to that group, now seven in number, of etymologies in which Br. *d-* corresponds to *n-* either of PDr. or of the northern languages. This correspondence is not entirely cleared up, since there are a number of clear instances in which PDr. **n-* is represented in Brahui by *n-* (entries 2980, 3019, 3051, 3055, 3064, 3089). We cannot go further at the moment.[9]

There remains unidentified in Brahui the general Dravidian nearer demonstrative base **i/ī*. Has it vanished from Brahui, or can it still be identified? I think the latter is the case. Elsewhere I have treated the Brahui enclitic suffix pronouns. Bray describes them and their use, and states that in the oblique cases except the accusative, genitive, and dative, they occur with a base *ī* which is declined for case; e.g. *masiṛ hinā ītō-tā* 'the girl went with them' (*ī-tō-tā* [base]-with-them), *īki-numā ant hēsur* 'what did they bring for you (pl.)?' (*ī-ki-numā* [base]-for-you pl.), *īis-ka* 'in my possession' ([base]-in possession-my), *īaṭ-ne* 'by you' ([base]-by-thee). Bray (*Vocabulary*, s.v.) had already suggested that *ī* was originally the demonstrative, i.e. *ī-tō-ka* 'with me' was originally 'with this one, i.e. me', *ī-tō-tā* 'with them' was 'with these, i.e. them'. I had the idea independently at a time when Bray's second volume was unavailable to me, and on that account feel doubly convinced that the explanation is a good one. The only point that could be urged against it is that the declensional type of *ī-*, which is that of the ordinary nouns that have the inflectional suffixes added directly to the absolute form (so here *ī-ān-*, *ī-aṭ-*, *ī-tō-*, etc.), is unlike that of the demonstratives which have a special oblique stem (e.g. *dā/dād*, *dāṛ-ān*, *dāṛ-aṭ*, *dāṛ-tō*, etc.). I cannot explain the discrepancy, but think it is not fatal to the suggested etymology of *ī*.[10]

NOTES

1. For fairly early Kannaḍa inscriptional material, G.S. Gai: *Bulletin of the Deccan College Research Institute*, 10.68 (1950). L.V. Ramaswami Aiyar: *The Evolution of Malayalam Morphology*, 32 (1936), finds no forms for Malayalam.

2. Emeneau: *Kota Texts, Part* 1, 24, 39. For bibliography in general, see that in *A Dravidian Etymological Dictionary*.

3. Bray in his *Grammar* wrote *o* and stated that this phoneme is long in all occurrences; in the later *Vocabulary* volume he wrote *ō*.

4. For more on this pronoun, see below. The most recent treatment is T. Burrow: *BSOAS*, 11.596-600 (1945).

5. The Dravidian Verbs 'come' and 'give', *Language*, 21.184-213 (1945). [This hypothesis has now been abandoned; see 'New Brahui etymologies', n. 22, and *JAOS* 95.20-3 (1975).]

5ª. [For the base **e*, see *DEDR* 764, which contains data from Gondi, Pengo, Manḍa, Kui, Kuwi, Brahui. Although Brahui *ō* and Kui *o* go together prima facie, it now seems most probable that Brahui *ō* is a borrowing from Panjabi-Lahnda *ō* or from Indian Persian *o* 'that'; see 'Indian demonstrative pronominal bases—a revision', *Proceedings of the Sixth Annual Meeting of the Berkeley Linguistics Society*...1980, pp. 20-7, and *DEDR* 923.]

6. It was already advanced by L.V. Ramaswami Aiyar: *Indian Historical Quarterly*, 5.148-51 (1929), from whom apparently Bray derived it.

7. For the second part of this word (? *-a·ndī* or *-na·ndī*), cf. Tamil *ñāṉṟu* 'time, day', Malayalam *ñānnu* 'day', *mini-ñānnu, muni-ñānnu* 'day before yesterday', Koḍagu *monia·ndī* id., Telugu *nēḍu* 'today', Gondi (Trench) *nēnḍ*, (Williamson), *ner* id., Konḍa *nēnṟu* id., Kui *nēnju* id., Kuwi *nĭnju* id.

8. *Introduction to the Malto Language*, 31 (1884).

9. If this explanation fails to convince, I can only suggest that *dā-* has its *d-* by the analogy of *dēr* 'who?' (whatever be the origin of *d-* in this word). The contexts must be frequent in which 'who?' and 'this' could influence one another (e.g. 'Who is this?' 'This is...'). [It is now agreed that *dā* is a borrowing from Pashto (Bh. Krishnamurti, 'Dravidian nasals in Brahui', *Dravidian Linguistics* (*Seminar Papers*, ed. S. Agesthialingom and N. Kumaraswami Raja; Annamalai University, 1969), p. 67; *DEDR* 1). The problem of PDr. **n-*>Br. *d-* before front vowels was solved in this paper by Krishnamurti. Malto *ná* has nothing to do with Br. *dā*; it is a borrowing from Santali (see my paper referred to in n. 6 above, p. 26).]

10. I regret that the etymologies of the demonstrative pronouns as set forth in this paper could not be incorporated in *A Dravidian Etymological Dictionary*; the printing of the book had proceeded too far before the paper was worked out. It may be possible to add them in a Supplement which is already projected.

Chapter III

NEW BRAHUI ETYMOLOGIES*

W. Norman Brown's interests in Indic studies have been centered chiefly on other subjects than linguistic ones. Nevertheless, he has had linguistic interests as well, as his Prakrit lexical studies have demonstrated. Even more notably, he has furthered most actively the linguistic studies of the generations following his own, and this bouquet of Dravidian linguistic blossoms from one whose studies he fostered, is intended to express gratitude and homage on a happy occasion.

The Brahui etymologies included in Burrow and Emeneau's *A Dravidian Etymological Dictionary*[1] have been drawn in the main from Bray's work,[2] with such deletions, changes, and additions as we were able to make. Additions, on the whole, were few, since Bray's work was thorough and capable. However, the lapse of some years since *DED* went to press has allowed a further intensive working-over of the Brahui vocabulary, and more Dravidian etymologies for Brahui words have come to light, some not obvious at first sight, some only possible, others certain. This has been made possible by a combination of two factors. (1) *DED* contains the collectanea of many years, arranged by word families; such a collection and arrangement in itself leads to new etymologies. (2) On the basis of this collection it has been possible to tabulate the material and state the phonetic correspondences between Brahui and the other Dravidian languages in a more certain way than was possible previously. The two factors have led to the envisaging of new possibilities for words for which Bray was unable to guess the etymology, and occasionally to the finding of more plausible or more well-evidenced etymologies than those which Bray provided.

The process has been long and tedious. The results have been achieved too late to be incorporated in *DED*, since the printing arrangements did not allow substantial revisions in proof. It is hoped that a supplement will be issued in the future to contain these new Brahui etymologies, other overlooked items from earlier published material, and much material newly recorded in the field. Meanwhile some of the Brahui etymologies are of sufficient independent interest to warrant separate publication and some explanatory discussion, because of the peculiarly isolated and anomalous position of the language and the hope that when all the comparative data have been extracted from Bray's account, it may be possible to arrive at some solution of the problem of the position of Brahui within the Dravidian family.[3]

**Indological Studies in Honor of W. Norman Brown* (American Oriental Series, 47), pp. 59-69 (1962).

(1) *danning* 'to cut'

dann- (pres. *dē-*, neg. **dar-* [*dapp-*, *datt-*], imperative *da, dar, darak,* past *darē-*) 'to cut (of a knife), blight (as frost the crop), usurp (property), carry off (a prize), win, take away'. Bray reverses the order of the meanings; he adds 'take off, remove', but the example given has in fact a 'cut' meaning ('the sword took his hand off'). I suspect that the order that I have given is more plausible, but no arguments based on meaning can be anything more than *ad hoc*. The new and certain, though not obvious, etymology is with *DED* 3127: Ta. *nēr* (*nērnt-*) 'to cut off, sever'; Ka. *nēr* 'to cut, cut off'. The Brahui verb belongs to an irregular class (of six or more verbs with several sub-classes) which must be treated in detail elsewhere. However, most of the details of the irregular-looking forms of this verb are historically explicable from the etymology in terms of well-established phonetic correspondences.

We now know for some of the languages[4] and can already assume for Proto-Dravidian, that a verbal base of the shape (C)V̄C- has this shape when no derivative suffix follows, but has an allomorph (C)V̆C- when there follow derivative suffixes beginning with vowels. Similar phenomena certainly occur in nouns, but on this the details are not yet worked out for any language. Exx.: Ka. *kiṛ-* 'to scream, cry out', Te. *ciṛ-* 'to call': Ta. *kiṛāv-* 'to cry (as a peacock)', Ko. *kiry-* 'to shout' (suffix **-i-*), To. *kiṛc-* id. (for the suffix, cf. Ka.), Ka. *kiṛacu, kiṛicu, kiṛucu, kircu* 'to cry, shout, scream' (*DED* 1323).

Br. *pān-* 'to say, tell', Kol. *pa·na* 'language': Ta. *paṇi-* 'to speak, say, order', To. *poṇθ-* 'to talk in assembly' (suffix uncertain, possibly **-ṿ̄nt-*), Tu. *paṇpini* 'to say, narrate, teach', Te. *panucu, pancu* 'to command, send', Kol. *pank-* 'to send' (suffix **-Vkk-*), Kui *paṇḍ-* 'to send, commission' (suffix uncertain) (*DED* 3212).

Ta. *nēṛṛu* 'yesterday', Ko. *ne·r* (oblique *ne·ṯ-*) id., To. *ïne·ṛ* id.: Ta. *nerunal, nerunai, neṉṉal* id., Br. *darō* id. (<**neṛ/r-*V) (*DED* 3109).[5]

Given this allomorphy as demonstrated for many bases, we may assume for the base represented by Ta. Ka. *nēr* a possible allomorph **ner-* before a suffix beginning with a vowel.

Some of the Brahui phonetic correspondences have been discussed in the paper on 'Brahui demonstrative pronouns', especially **ē*>Br. *ē*, **e*>Br. *a*, and **n-*> Br. *d-*. The first two need no further discussion here.[6] The third is of particular interest since there are now five certain instances: *DED* 3057 *dīr* 'water': **nīr*; 3106 *ditar* 'blood': Ta. *neyttōr, etc.*; 3109 *darō* 'yesterday': Ta. *nerunal*, etc. (see above); 4228 *dēr* 'who?': Kur. *nē*, Malto *nére*; *dā-* 'this': Malto *ná* 'that one here' (:**ā-* 'that'; see discussion in 'Brahui demonstrative pronouns'); and one that is almost certain in spite of difficulty of detail, viz. *DED* 2371 *dē* 'sun': Ta. *ñāyiṛu*, Ka. *nēsaṛ*.[7] These are in unexplained contrast with six instances of **n-*>Br. *n-* (*DED* 2980, 3019, 3051, 3055, 3064, 3089). The etymology now under consideration should be added as a certain instance to the group showing **n-*>Br. *d-*.[7a]

If we now apply these three etymological correspondences to the two

allomorphs of the base **nēr-* ~ **ner-*, Brahui should show (*nēr-* and *nar-*, or) *dēr-* and *dar-*. The *d-* forms in fact appear in the present stem *dē-*, and in the imperatives *dar*, *darak*, the past stem *darē-*, the hypothetical **dar-* of the negative stems *dapp-* and *datt-* (with simplification of consonant clusters *rpp* and *rtt*), and presumably in the infinitive stem *dann-* (with either simplification of a cluster *rnn* or an analogical form; more work is needed on this point). The imperative *da* must be analogical (to *ḫa* 'come!'). Loss of *r* in the present stem *dē-* is still unexplained; either simplification of consonant clusters or analogy will emerge from detailed study of the whole class of irregular verbs. One other point still remains unsolved: does the short-vowel form **ner-* appear because of a derivative suffix beginning with a vowel, which is now quite unidentifiable in Brahui, or is there some other still unidentified reason?[8] Study of the irregular verb class may resolve most of these unanswered questions. In spite of remaining difficulties, however, the etymology seems a good one. Certainly it is better than Bray's suggestion of connection with Go. *(y)ētānā* 'to take'. The phonological difficulties of his suggestion are insuperable, and connection of this Gondi stem *ēt-* with the items in *DED* 766 is good both phonologically and semantically.[9]

(2) Words with *h-*

Brahui *h* has always been a stumbling-block to etymologists. It has been recognized that in most of the instances with Dravidian etymologies initial *h* is unrepresented in the etyma. There have, however, been attempts to equate it with **k-* (e.g., Bray connected Br. *halling* with Ta. *koḷ,* etc.; see below), or with Gondi or Kuwi *h-* which resulted from PDr. **c-*.[10] Phonetically it turns out that Bray's *h* in all positions is a glottal stop, with very few exceptions (all non-Dravidian) in which *h* is the voiceless aspirate. This glottal stop is of various origins, since it occurs in words of non-Dravidian origin as well as in Dravidian words. For initial position in words of Dravidian origin Bray gives many examples of free variation between glottal stop and nothing. My observations showed glottal stop always present, but longer contact with Brahui speakers might well have shown Bray to be correct, and I suspect that fresh fieldwork might show that every word written with an initial vowel has a free variant with initial glottal stop.

It is improbable that any glottal stop in a Brahui word of Dravidian origin will be represented by any phoneme in a Proto-Dravidian form. Certainly, the morpheme where one might expect to find a Brahui glottal stop as an inherited phoneme fails to show it, viz., the negative morpheme in the verb structure, where the Kui and Konḍa evidence seems to point in the direction of a Proto-Dravidian glottal stop.

A Brahui *h* in initial position, then, should be ignored in looking for etymological connections. A lingering inhibition in this matter prevented the inclusion of a few of Bray's etymologies in *DED*, e.g., of *haninging* 'to copulate (of human beings)' with 69b, and of *(h)ūling*, *hūlāi-ing* 'to howl' with 647.

It also led to the double reference of (*h*)*unning* (*hur-*) 'to look, look at, look for, wait for, consider' to *DED* 2257, Ta. *cūṟ* 'to deliberate, consider, know', Te. *cūcu* (*cūḍ-*) 'to see, observe', etc., and to *DED* 625 and 610, Ta. *uṉṉu* 'to think, consider', *uṟu* 'to pass in one's mind, think', Ka. *uṅkisu* 'to consider, observe, look at', etc. Only the latter is correct; moreover, the alternation *un-/uṟ-* in South Dravidian explains the allomorphy *hunn-/hur-* of Brahui.

Several more examples follow here and in the next section.

halling (pres. *halē-*, imperative *halh*, past *halk-*)[11] 'to seize, hold, buy, overtake, detect, tack together (a tear); get caught, stick', is to be connected with *DED* 253: Ta. *aḷa* etc., nearly all with meanings 'to mingle, be united'; Te. *alamu* 'to seize, lay hold of, take; mix with, be one with'.

hamping 'to load up, load up and go, start, depart, be wiped out', *hampifing* 'to make to load, make to start off, help to load', *hamp* 'start, starting' are to be connected with *DED* 278, Ta. *aṉuppu* 'to send' (cf. especially Kur. *ambnā* 'to let go, send away, leave a place').

(*h*)*ēling* 'to spread out (carpet, tablecloth, clothes to dry)' should probably be connected with *DED* 766, Ta. *ēl*, etc., especially Te. *ērcu* 'to set in order.'

hilh 'fever'[12] may belong with *DED* 432, Ta. *iḷaku*, etc., one meaning of this group (found in Ta., Ma., Koḍ.) being 'to shake'; unfortunately, none of the languages other than Brahui has the 'fever' meaning (at least, it is not recorded).

(3) *hining* 'to go' and PDr. **ey* > Br. *i, ē*

hin- (pres. *kā-*, for which see *DED* 1195 and further etymological connections in 'North Dravidian velar stops') 'to go, depart, disappear, be past, pass beyond, be no longer fit for, flow, (stomach) has diarrhoea'.[13] A possible etymology is with the group in *DED* 693: Ta. *eytu* 'to approach, reach, obtain, be suitable', Ma. *eytuka* 'to get, obtain', *ettuka* 'to reach, arrive', Ka. *aydu* 'to approach, reach, go to, join, obtain, be suitable,' Koḍ. *ett-* 'to arrive,' Tu. *ettāvuni* 'to reach, deliver,' Te. *ey(i)du, ēdu* 'to attain, go to, join, obtain; suit, be proper', Kol. *end-* 'to arrive,' Pa. *ēd-* id., Go. (SR) *evānā* 'to reach', Kui *epa* (*et-*) 'to arrive, reach, overtake, be sufficient'.

Of the meanings of the verbs in this group, Kui's 'overtake' is probably identical with the Brahui 'pass beyond'; otherwise, the meanings as given are not very close. However, the meanings given for the Kurukh verb *kā-* (in *DED* 1195), with which the Brahui present stem *kā-* is cognate, agree in their general range with those of the Brahui suppletive verb. Moreover, the Malto verb *kál-* (in *DED* 1195) means 'to go, come to', which is very close to the meanings in *DED* 693. There can be no doubt, when the total statement of meanings for the two groups of etyma is taken into account, that semantically the connection is a good one; it would perhaps be even better if we were provided with better definitions for some language or another, perhaps especially for Malto.

Phonologically, Kolami has *-n-* to correspond with Brahui *-n-*.

The Brahui correspondences of PDr. **ey* in root-syllables are still not very certain, because of the few identifiable etymologies. I would suggest that the surest of these etymologies show two correspondences, *i* and *ē*, the difference being probably a conditioned one which at this stage is not statable.

Perhaps the most cogent of the etymologies is that which connects Br. *piṛ* 'rain', *pir dassing/kanning* 'to rain' with the items in *DED* 3610: Ta. *pey* 'to rain, fall (as dew or hail); pour down or into (tr.), discharge, shed', *peyar* 'to discharge', Ma. *peyyuka* 'to rain, pour', Go. *pirr*, (SR) *pīr* 'rain', Konḍa *piṛ* id., Kui *piju* id., Kuwi *pīyu* id. (Ko., Koḍ., Kur., and Malt. have forms with *o*, which must be secondary to those with *e*). Krishnamurti (*Telugu Verbal Bases*, §1.283) has already indicated that in Central Dravidian (here Go., Konḍa, Kui, Kuwi) PDr. **ey* is represented by *ī*. In this instance Brahui has the same development, and its form may well have the same suffix *-ṛ* that is clearly found in Gondi and Konḍa.[14]

If this etymology proves to be cogent, it is warrant for the connection of Br. *hin-* with the forms with *ey* in *DED* 693. It is argued in section 4 that *tin-* (*tir-*, *ti-*) 'to give' is to be derived from **tey-*, as a third example of the phonetic correspondence suggested.

The other correspondence suggested, but with much less certainty, for PDr. **ey* is *ē*. Another allomorph of *tin-* 'to give' is *tē-*; in section 4 it is suggested that this too is from **tey-*. Parallel to this is *kē-*, the corresponding allomorph of *kann-* (*kar-*) 'to do, make'; *kē-* may be from **key-*, as seen in *DED* 1628, Ta. *cey*, Ko. *gey-*, To. *kïy-*, Ka. *key*, *gey*, Koḍ. *key-*, Tu. *gey-*, Te. *cēyu*, Ga. *key-*, Go. *kī-*, *kiy-*, Konḍa *ki-*, Kui *ki-*, *gi-*.[15]

(4) *tining* 'to give'

tin- (*tir-*, negative *ti-*, pres. *ēt-* [dialectal *tē-*], imperative *ēte*, past *tiss-*) 'to give'. This verb belongs to the irregular class which includes also *danning* (discussed in section 1). Not all problems can be solved or discussed here; as is said above, the class requires treatment as a whole elsewhere. This verb has not been included in *DED*, for the reason that all etymologies suggested earlier (including my own) are or seemed improbable, usually on phonological grounds. It seems clear that *tining* has two suppletive stems, one being *ēt-*, and that there is relation between some of the forms and some of those of the verb *hating*, *hatining*, etc. 'to bring', the latter's forms *hatar-*, *hata* being correctly related with *DED* 2526, Ta. *taru* 'to give', etc.

Bray connected *tining* (*tir-*) with Ta. *taru*, but was unable to sort out the various 'give' verbs or to provide a phonology.[16] It now seems on close examination that the connection with Ta. *taru*, etc., is correct and that the details of the Brahui irregularities make the etymology very convincing.

The group of etyma represented by Ta. *taru* 'to give', Ka. *tar* 'to bring' (*DED* 2526) has been made to include Te. *teccu* (*tē-*, *tēr-*) 'to bring' by setting up a base **ta-*, which has a derivative stem with suffix *-y-*, i.e., **ta-y-* > **te-y-*, whence the Te. *tē-* forms.[17] It has been argued in section 3 of this paper, in

dealing with *hining*, that **ey*>Br. *i*. Phonologically, **tey-* could, according to this suggestion, yield Br. *ti-* beside Te. *tē-*, and **tey-r-* (or the like) could yield Br. *tir-* beside Te. *tēr-*; we should even have Br. *tiss-* (with a past tense sibilant suffix) alongside Te. *tecc-*.[18] It was also suggested in section 3 that another Br. representative of PDr. **ey* is *ē*, and that this is found in this verb in *tē-*, the dialectal variant ('used by the more wild Brahuis') of the present stem.

One of the problems of this widespread Dravidian verb is its meaning. Earlier[19] I pointed out the peculiar distribution of 'give' and 'bring' meanings. *DED* 2526 now gives a few further items. The distribution is: 'give to 1st or 2nd person' Ta. Ma. To. Ko. Badaga Koḍ.; 'give' Ka. (uncommon, and clarification on its occurrence still needed); 'bring' Ta. (causative *taruvi*; probably late and borrowed) Ka. Tu. Te. Go. Konḍa Kui Kuwi. The remnants in Kolami seem to be classifiable as 'give', as did the *tar-* forms in the Br. compound *hatining* 'to bring'. The earlier interpretation, based in part on the association of the meaning fraction 'to 1st or 2nd person' with the irregularities that are involved in the vowel-length and the presence of *r* in some forms, and in part on what seemed *a priori* the easiest meaning development, was that the development should be assumed to be: 'give to 1st or 2nd person'> 'give'>'bring'. The overlap in Ta. (note the late causative) and in Ka. (uncertain as its value still is) look in this direction. The present addition of Br. *tining* 'to give' to the set of etyma adds the clinching piece of evidence. Retentions of 'give' meanings in the south and in the far-removed northern Brahui can methodologically be more easily interpreted as independent retentions of a general Dravidian meaning than as independent developments from the 'bring' meaning; moreover, the 'bring' meanings now appear as a development in the central area, a development that spread all over this area, but failed to penetrate (except late) into the marginal south and the marginal northern Brahui, and failed moreover to extinguish the Kolami remnants, which are the only traces of the verb so far reported or identified in the Kol.-Nk.-Pa.-Ga. subfamily. It may be further assumed that the retention of the 'give' meaning in Brahui, as against the spread of the 'bring' meaning elsewhere in Central Dravidian, is evidence for the lines of communication between Brahui and central India having become thin prior to the establishment of the present distribution of meanings.

[When the evidence of the Brahui peculiarities of form is combined with that of meaning, it seems possible to arrive at a chronological statement about Brahui. In form this verb in Brahui is close in its derivational origin and its irregularities to Telugu, so uniquely close that we seem justified in positing close historical contact between the two languages.[20] This contact is later than the separation of Kui from the rest of the Dravidian family, since, as was demonstrated previously, it is only the Kui regularities that will explain the origin of the irregularities (in this set of etyma) in all the other Dravidian languages, including Telugu and Brahui. Brahui, then, belongs

with the other Dravidian languages as against Kui, and chronologically its connections with the other Dravidian languages must have been cut after the split-off of Kui, long enough after for the peculiarities of this verb to have developed in the Dravidian family minus Kui. On the other hand, Brahui and Telugu must have severed connections before the central Dravidian languages (including Telugu) developed the 'bring' meaning. The earliest Telugu literary texts (eleventh cent., A.D.), and also the inscriptions (evidence from circ. 892 A.D.), have only the 'bring' meaning. This provides a *terminus* of at the earliest the ninth century, A.D., but extrapolation by a few more centuries, perhaps even to the earliest Telugu inscriptions in the fifth century, A.D., is possibly in order. Unsatisfactorily indefinite as this is, it is in fact the only chronological indication so far arrived at for Brahui.][20a]

Having presented what I think is the best possible etymology for Br. *tining*, I should mention another possibility which occurred to me earlier but which I think has much less to be said in its favor and which should be rejected in advance of anyone else suggesting it.

DED 2833 has the following items: Ta. *tiṟai* 'tribute', Ma. *tiṟa* id., 'taxes, offering, an inferior feast', To. *teṯ-* (*teṯ-*) 'to pay (fine, debt)', *teṟ* 'compensation paid in buffaloes to man whose wife is taken by another,' Ko. *ter-* (*teṭ-*) 'to pay (debt)', Ka. *teṟu* (*tett-*) 'to pay', *teṟe, teṟage, teṟige, teṟege* 'tribute, tax', *teṟa, teṟavu* 'price paid for a wife', *tiṟ(u)* 'to exchange, barter, pay, offer, present, give', Koḍ. *ter-* (*tett-*) 'to pay (penalty)', Tu. *terige* 'taxes', *tirmuru* 'exchange', Kui *tehpa* (*teht-*) 'to repay, return, make restitution', n. 'restitution, repaying'.

The Kannaḍa meaning development for *tiṟ(u)* would provide a link with the Brahui verb. The phonology is satisfactory as regards **t* (>Br. *t*) and **ṟ* (>Br. *r*).

However, the root vowel causes difficulties. The Kannaḍa form *teṟu* and its past stem *tett-* (backed up in all probability by the Kui form) are sound evidence that the PDr. root is to be reconstructed as **teṟ-*.[21] The PDr. vowel **e* is represented by Br. *a* in a number of very good etymologies (cf. note 6), as well as by a few seemingly good instances of Br. *i*. The conditioning contexts (if this is the explanation of the divergence) are not yet clear.

So far, then, it would seem wise to keep an open mind as between Br. *tir-* representing PDr. **teṟ-* and its being connected with Te. *teccu* (*tēr-*, etc.)— everything else being equal. But, of course, everything else is not equal. The latter connection gives a better meaning equivalence, explains many of the irregular details of the Brahui verb in a way that the former does not, and in phonology is prabably a little better than the former (in the present state of our knowledge).

(5) *Words with* <u>*lh*</u>

The voiceless lateral, written by Bray <u>*lh*</u>,[22] is a phoneme of somewhat rare occurrence. Etymologically in a number of examples it is one of the repre-

sentatives of the two laterals, PDr. **l* and **ḷ*, which are more often represented by Br. *l* or *ll*. The identifiable instances are *pālh* 'milk' (**l*; *DED* 3370); *halh* 'seize!' (imperative of *halling*; **ḷ*; *DED* 253; see section 2); *hilh* 'fever' (**ḷ; DED* 432; see section 2); *tēlh* 'scorpion' (**ḷ; DED* 2855). *pilhing* 'to squeeze' is related only to Malto *pilqe* id. (*DED* 3437); it cannot be determined whether the lateral represents PDr. **l* or **ḷ*.

The morphophonemic alternation seen in *halh*, imperative of *halling* 'to seize', is seen also in two other parallel verb sets: *xalh*, imperative of *xalling* 'to strike,' which has been dubiously connected with Ta. *kol*, etc. (*DED* 1772; **l*); *tūlh*, imperative of *tūling* (past *tūs*-) 'to sit, seat oneself, remain sitting, wait, dwell, calmly to do something, be made to sit, remain a maiden (unmarried)', which is to be connected with *DED* 2693, Ta. *tuñcu*, 'to sleep, rest without work, abide, stay', *tuyil* 'to sleep, abide, stay', n. 'sleep, dream, abiding, staying', etc. (**l*>*lh*). The verb *palhing* 'to be boiling, on the boil, stewed' has no etymology so far.

Two words are either certainly or almost certainly of Indo-Aryan origin. *jalh* 'flame' is given by Bray as from Jaṭkī *jall*-, Sindhi *jal*- 'to burn'. About *sēlh* 'winter' he is less certain of the connection with Jaṭkī *siāl* id., thinking of connection with the group in *DED* 1990: Ta. *caḷi*, etc.; the Dravidian vowels present phonological difficulty, and the Indo-Aryan connection may be better. The verb *illing*, local variant *ilhing*, 'to leave, let go, leave over, keep, give leave, allow', has beside it Baluchi *il*- and is thought to be from Persian *hil*-.

Several Dravidian words remain.

mōlh 'smoke' is put in *DED* 4215 with Kur. *mōjkhā*, *mōsgā* 'smoke', *moj°-khnā*, *mosga'ānā*, *mos°gnā* 'to create smoke, fumigate', Malt. *moge* 'to smoke, emit smoke', *mogje* 'to fumigate', *mogtre* 'to cause to smoke', *mogare* 'charcoal, soot.' The first Malto form has a simplex stem *mog*-, which is not represented in Kurukh, and the derivative *mog-j*- with suffix *-j*- seems to be the basis, with metathesis, of Kur. *mōjkh*- and the rest.

malh 'son', for which Bray gives no convincing etymology, shows some similarity to the group *DED* 3768, which consists in the main of the stem **maka* (Ta. *maka* 'child, son or daughter'), which in most of the languages occurs with gender-suffixes, such as **-n* masculine, **-ḷ* feminine. Malto has *maqe* 'boy', *maqi* 'girl', *maqo* 'small, young'.

These two Brahui words suggest that *mōlh* is derived from North Dravidian (or possibly even PDr.) **mok*-, and *malh* from PDr. **maka*-, and that **-k*- may be taken as another source of Br. *lh*.

To these we may add *hīlh* 'fly', which is clearly related to *DED* 453, Ta. *ī*, Ma. *īcca*, Ko. *i·p*, To. *i·py*, Te. *ǐga*, Kol. Nk. *ni·ŋga*, Kur. *ēkhā*, all with the same meaning. Several suffixes are found in the group. To these we might think of adding another, a lateral (*l* or *ḷ*), for Brahui. But it is now possible to connect Br. *lh* directly with Kur. *kh* (<PDr. **-k*-). That Brahui should

show a closer relation to this other North Dravidian language than to other languages of the family is not unexpected.

Finally, *mēlh* 'sheep' should be examined. Bray made a tentative connection with Persian *mēsh* 'ram, sheep', Sanskrit *mēṣa-* id., or with Sanskrit *mēḍhra-* 'ram' (lexical). The latter suggestion seems highly improbable. The former can certainly not be ruled out as an initial possibility, but, since it introduces still another origin for *lh*, it should be avoided if another etymology can be found along the lines of correspondence already laid down. This now seems very easy. *DED* 4174 has forms with PDr. **-k-* or **-kk-*: Ka. *mēke* 'she-goat', Te. *mẽka, mēka*, (early inscriptions) *mrēka* 'goat', Kol. Nk. *me·ke* id., Pa. *mēva,* (S) *mēya* 'she-goat', Ga. *mēge* 'goat', Go. (M) *mekā* id. The Pa.-Ga. sub-family has clear evidence for **-k-*,[23] most of the other languages for **-kk-*. It is somewhat uncertain whether we should add (*DED* does so with a query) Kur. *mēkh-* (*mīkhy-*) 'to call, call after loudly, hail', Malt. *méq-* 'to bleat'; it makes no difference to our present point. There are, however, some points still unsolved. What is the origin of *-r-* in early Telugu *mrēka*?[24] It looks like a typical instance of Telugu metathesis, derived from something like **m i/e/ē r/ṟ/ṟ a k-*. No other Dravidian form can be adduced which would help in such a reconstruction, since Ta. *mēṟakam* 'ram', which is attested (according to *Tamil Lexicon*) only in the tenth century Cīvakacintāmaṇi, can hardly be anything but a borrowing from a hypothetical Sanskrit *mēṣaka-*; this is presupposed by the lexical Sanskrit *mēṣikā* 'ewe' and is fully expected as a derivative from Sanskrit *mēṣa-* 'ram, sheep', which is already Rigvedic and has a cognate in Avestan *maēša-*.[25] It might be suggested for the Telugu form that it is a very early borrowing of Sanskrit *mēṣa-*, remade with *-ka-* (*svārthe*) and then yielding *mrēka* through regular Telugu developments; it can hardly be a borrowing from a Prakrit **mēsaka-* since this could hardly yield Te. *-r-* from *-s-*. Or is *mrēka* merely an elegant hyper-archaism, such as is seen in *truḷḷu* vis-à-vis *tuḷḷu* of the other languages (*DED* 2767; cf. Krishnamurti, *Telugu Verbal Bases*, §1.145)? Whatever the origin of *-r-* in *mrēka,* it is very possible that the Central Dravidian forms with *-k-* are borrowed from Telugu *mēka*, since it is pointed out (by Krishnamurti) that sheep and goats are rare in this area. Even the Kannaḍa form might be a borrowing from Telugu. It seems likely, however, that the Pa.-Ga. forms with PDr. **-k-* (>*-g-*, etc.) are independent of those with PDr. **-kk-* (>*-k-*). The *prima facie* statement, that Br. *mēlh* represents a PDr. **mēk/kk-*, still on the whole seems plausible.

We have, then, two instances (*mōlh* and *malh*) in which no other hypothesis seems possible except that Br. *lh* represents PDr. **-k-*, a third (*hīlh*) in which Br. *lh* <PDr. (or Proto-North Dravidian) **-k-* is the most economical hypothesis, and a fourth (*mēlh*) in which the *prima facie* hypothesis is that **-k-* or **-kk-* is the origin of *lh*.[26]

NOTES

1. Referred to for short as *DED*; references to it are by the number of the entry.

2. Sir Denys Bray, *The Brāhūī Language* (Part III. Etymological Vocabulary), Delhi 1934. [Bray's transcription <u>*kh*</u> has been replaced by *x*, as in *DEDR*.]

3. Several other studies of mine have treated Brahui material with the same object in view: 'Numerals in comparative linguistics (with special reference to Dravidian)', *Bulletin of the Institute of History and Philology, Academia Sinica*, vol. 29 (Studies presented to Yuen Ren Chao, 1957), pp. 1-10; 'Brahui demonstrative pronouns'; *India and Historical Grammar*; 'North Dravidian velar stops'.

4. For Telugu, see Bh. Krishnamurti's demonstration in 'The history of vowel-length in Telugu verbal bases,' *JAOS* 75 (1955). 237-52.

5. This Brahui etymology has been discussed in 'Brahui demonstrative pronouns'.

6. **ē*>Br. *ē* is seen in *DED* 769, 2855, 3627, 4552 (and also 651). **e*>Br. *a* is seen in *DED* 451, 710, 1645, 3109, 3608, 4234, and probably in 723, 2002; a few examples seem to show other developments, e.g. *i*, which need not be discussed here.

7. *DED* 3009 *dūī* 'tongue': Ta. *nā*, *nāvu*, etc. is very problematical.

7[a]. [The problem presented by **n-*>Br. *d-* was solved by Bh. Krishnamurti, 'Dravidian nasals in Brahui', *Dravidian Linguistics* (*Seminar Papers*, ed. S. Agesthialingom and N. Kumaraswami Raja; Annamalai University, 1969), pp. 65-74. This change is conditioned by a following front vowel; otherwise **n-* remains as *n-*. —Brahui *dā-* 'this' is a loanword from Pasthto *dā* (ibid., p. 67). —For Br. *dē* 'sun', see now 'Brahui vowels', n. 16a.

8. Any temptation to find the shortening condition in the past tense suffix *-ē-* (*darē-*) must of course be dissipated by the failure of this suffix and the other vocalic past tense suffix *-ā-* to condition shortening of a long root vowel in other verbs; e.g. *pān-* 'to say,' past *pārē-*; *hūl-* 'to howl', past *hūlā-*.

9. Bray was followed in the Gondi connection, with further implausible speculation, by E.H. Tuttle, *JAOS* 56 (1936).352.

10. So Pierre Meile, *Journal asiatique* 234 (1943-5). 87-9, relying on too scanty etymologies; he was followed by Krishnamurti, *Telugu Verbal Bases*, §1.210.

Of the items treated by Meile, Br. *(h)unning* (*hur-*) 'to look, consider' is connected with Ta. *uṉṉu*, *uṟu* further on in section 2, and not with Ta. *cūr*.

Meile connected Br. *(h)ēfing*, *harfing* with Ta. *ēru*. In *DED* it is placed with Ta. *ēṟu* in 776, or alternatively with Ta. *eṟu* in 723; no criteria are at hand to decide between these two possibilities. However, Go. *sēṛānā* 'to invade a country, enter or occupy a house', on which Meile relied for evidence of a sibilant to which Br. *h-* should correspond, belongs with neither of these sets but with *DED* 2312, Ta. *cēr*, etc.; Br. *r* could go with PDr. **r*, **<u>r</u>*, or **<u>r</u>*, but Go. *ṛ* goes best with PDr. *r*, and the meaning connections, in fact, are much better.

Br. *(h)ūringing*, *(h)ūrēnging* fit better in meaning with *DED* 573a, Ka. *urku*, etc., than with *DED* 648, Ta. *ūṟu*, etc. Kui *sūga*, which Meile cites as evidence for Br. *h-* developing from a sibilant, cannot be fitted into 648, on the basis of anything otherwise found there in the derivational morphology; in fact, Kui *urpa* and Kuwi *ūta* belong there.

Br. *(h)arring* was put by Meile with both Ta. *aṟu* (*DED* 266) and Go. *sarrānā* (*DED* 1951; Pa. Go. Kur. Malt.). *DED* put the Br. item in 266, which, according to my thesis about Br. *h-*, rules out connection of 266 and 1951. In fact, such connection, if it were admitted, would be the only piece of Meile's evidence that actually looks in the direction of his phonological statement.

On the Brahui phonetics, see Emeneau, 'Phonetic observations on the Brāhūī language', *BSOS* 8.4 (1937). 981-3. [More recent observations by several scholars have yielded more exact information on Bray's *h*. My statement holds of the pronunciation of my Nīŏārī Jhālawān informant. Professor M.A.R. Barker informed me that his observations showed that *h* represents *h*, glottal stop, or zero, depending on the dialect, and that this variation

is correlated with similar variation in neighbouring Balochi dialects (M. B. Emeneau, 'Linguistic desiderata in Baluchistan', *Indo-Iranica: Mélanges présentés à Georg Morgenstierne...* [Wiesbaden, Otto Harrassowitz, 1964], p. 75). J. Elfenbein ('Notes on the Balochi-Brahui linguistic commensality', *Transactions of the Philological Society* 1982, p. 84) presents a more exact statement of the dialect variation between *h* and glottal stop.]

11. Bray connected it wrongly with Ta. *kol*, etc. E. H. Tuttle rejected Bray's suggestion (*JAOS* 56 [1936].354), but failed to find the correct etyma.

12. Bray connects it with *halling* 'to seize', i.e. 'a seizure'; the phonology is improbable.

13. Bray suggests connection with Kuwi *han-* and Gondi *hand-*. Apart from the improbable correspondence of the Br. vowel *i* with PDr. **a*, *h-* in these two languages represents **c-*; *DED* 2286. E. H. Tuttle (*JAOS* 56 [1936].355) followed Bray, with an implausible suggestion about the original construction of the form. Krishnamurti, *op. cit.*, §1.15, also followed Bray, relying on Meile's suggestion of Br. *h-*<**c-*, which has been discussed in note 11.

14. *DED* 3610 did not include the Br. item, though Bray had already suggested the etymology. For **e* as the original vowel (that of Ta. Ma. *pey*), cf. Krishnamurti, *Language* 34 (1958).466. [But now see 'Brahui vowels', §2.19.(1), and n. 20a; *pir* cannot be connected directly with Tamil *pey*, *peyar*.]

15. The relationship of the other allomorphs of the Br. verb, and the presence of *k-* rather than [*x*]- must be treated elsewhere. It might be suggested that in *DED* 3106 Br. *ditar* 'blood' has *i* from the **ey* which is evidenced in Ta. *neyttōr*. However, no other form than the Tamil one has any evidence for anything but **e* (Ka. *nettar*, etc.). Ta. *neyttōr* is probably a popular etymology (*ney* + *tōr*). If so, this is an example of PDr. **e*>Br. *i*.

16. The Jhalawan dialect forms of the probable future, viz. *cōṭ*, etc. (beside normal *tirōṭ*, etc.), of which the stem seems to be merely *c-*, he connected with the verb **cī-* 'to give' (*DED* 2138, Ta. *ī*, etc.); the Jhalawan *c-* is probably merely a dialectal palatalized development of **ti-* of the *tining* set of forms. In *Language* 21 (1945).193-5, I adopted L. V. Ramaswami Aiyar's hypothesis (*Indian Antiquary* 62 [1933].150) that *ti-* is related with **cī-*; the phonological relationship of Br. *t-* to PDr. **c-* is impossible.

17. Cf. Emeneau, 'Toda, a Dravidian language', *TPS* 1957.39; I owe this to Krishnamurti, *Telugu Verbal Bases*, §1.249. For the stem forms with *r*, see my paper 'The Dravidian verbs "come" and "give",' *Language* 21 (1945).184-213.

18. For this past suffix, *TPS* 1957.35-46.—The suggestion that follows on the origin of *tē-* is intended to replace the explanation given in *Language* 21 (1945).195.

19. See *Language* 21 (1945).199 f., 203 f.

20. Kurukh and Malto, with which Brahui is usually connected in North Dravidian, do not have this verb represented in *DED* 2526. Krishnamurti (*loc. cit.*) has suggested that we should connect with *DED* 2526 Kur. *tai-*/*tēy-* 'to send, carry newly married girl out of village,' Malt. *tey-* 'to send' (*DED* 2814). An *ad hoc* meaning connection would in fact be possible, and the phonology is unexceptionable. However, since, so far as I can see, the chronological construct of the text would not be affected by this addition of evidence, I shall not pursue the matter further here.

20ª. [This whole paragraph must be deleted. My argument in *Language* 21.184-213 (1945) that the 'transition particles' (forming a 1st or 2nd personal object base) of Kui were proto-Dravidian and explained the irregularities of the verbs **tar-* 'to give to 1st or 2nd person' and **var-* 'to come', has had to be abandoned because of new Central Dravidian evidence (*JAOS* 95.20-3 [1975]); the personal object base is an innovation in the Koṇḍa-Pengo-Kui-Kuwi subgroup. The chronological construct based on my erroneous hypothesis falls to the ground: Kui did not separate early from the rest of the family; there was no close historical contact between Brahui and Telugu. On the other hand, the statement about the meaning development of the verb **tar-* still stands.]

21. Krishnamurti, 'Alternations *i*/*e* and *u*/*o* in South Dravidian', *Language* 34 (1958). 458-68, does not treat this set of etyma.

22. Not well described by him; see my article referred to in note 11, in which I record that the phoneme is a voiceless lateral, made just in front of the alveolar ridge. [Very late recognition (*JAOS* 100.311-2 [1980]) that **ṛ* is represented in a few Brahui forms by a lateral, including the etymology Br. *malh* 'son': Tamil *maṛa* 'youth, infancy, infant', etc. (*DEDR* 4747), makes it unnecessary to posit the phonologically improbable development of some instances of Brahui *lh* from PDr. **-k-* or **-kk-*. Apart from this, the assemblage of data on *lh* remains of some value, when supplemented by *JAOS* 100.311-2.]

23. Burrow and Bhattacharya, *The Parji Language*, p. 5.

24. I am indebted to Bh. Krishnamurti for my knowledge of this form, and for other discussion of the points involved.

25. Ta. *mēram* 'ram' is attested (according to the *Tamil Lexicon*) only in an 18th century lexicon, and can be nothing but a borrowing from Sanskrit *mēṣa-*. On the other hand, lexical Sanskrit *mēka-* 'goat' is surely a borrowing from Dravidian.

26. Krishnamurti has suggested that since *hilh* 'fever' is related with words that have *l...k* (Ta. *iḷaku*, etc.) and *pilh-* 'to squeeze' with Malt. *pilq-* that has **l/ḷ...k*, this combination of lateral and velar, resulting from loss of vowel in non-initial syllable, is the condition for the development of *lh* in these two forms. The variant developments of laterals in Brahui should undoubtedly be explained by differential contexts, and this may well be one of the conditions. On the other hand, to invoke a possible but dubious **ṛ* of Te. *mrēka* as providing another combination **ṛ...k* as the origin of *lh* seems somewhat unconvincing, since, in addition to the shaky origin of Telugu *r* in tnis word, PDr. **ṛ* has Br. *r* as its normal correspondence (*DED* 1348, 3440, 4169, ? 427, ? 723), and never a lateral.

Chapter IV

BRAHUI VOWELS*

2.1 Bray in his account of the Brahui vowels (I.24 f.) gave four pairs of short and long vowels, a ā e ē i ī u ū, and one vowel which is only long, viz., ō.[1] He did not notice that if the distribution of e and ē is examined, it is found that monosyllables, the first syllables of polysyllables, which in most such polysyllables have the accent, and any other accented syllables of polysyllables (viz., the second or third syllable in a few verb forms) never contain e, but only ē; e occurs only in nonaccented, noninitial syllables.[2] Consequently, if we leave aside the occurrence of e in nonaccented syllables, we find that the vowel system in accented, initial syllables, including monosyllables, contains a ā i ī u ū ē ō.

2.2 This nonsymmetrical vowel system is reminiscent of those found in numerous Indo-Aryan and Iranian languages. These show considerably divergent details. The oldest Indo-Aryan language, i.e. Sanskrit, has a system remarkably like that of Brahui, with length contrasts in three positions (combined with a quality contrast between a and ā), but only long and no short vowels in the mid positions front and back. Most modern IA languages, including Sindhi, have diverged somewhat from the older system in that the old paired long and short vowels now have different qualities (following the Sanskrit pattern of differentiated qualities for a and ā), and most of the languages have vowel phonemes of eight or more different qualities. Often there are subclasses of the phonemes based on quantitative allophones; when there are such, old ē and ō are usually classed with old ā, ī, and ū. Sindhi has such a system, with ɪ ʊ ə classed as short phonemes and i u e o a classed as long. In addition, however, it has ɛ and ɔ which are classed as long.[3] The Balochi system is not too clear in all details. It seems to combine differences of quantity and quality and to have the relevant skewness in not having short e and o. Pashto also has this skewness, but in addition has no ī and ū (except as Persian elegances) and has ə (as well as a and ā).[4]

2.3 The sampling of Indo-Aryan and Iranian languages just examined includes all the languages contiguous to Brahui. Since the Brahui vowel system, with its lack of short o and its peculiar distribution and near-lack of short e, is unparalleled in the Dravidian family, and since all the contiguous non-Dravidian languages have similar systems, which are typical of the whole of the Indo-Iranian subfamily of Indo-European, it is an obvious inference that Brahui owes this peculiarity to its neighbors. Of the three neighboring

**Brahui and Dravidian Comparative Grammar* (University of California Publications in Linguistics, 27), Chapter 2, pp. 7-20 (1962).

systems sketched, those of Sindhi and Balochi are nearer in detail to Brahui than is Pashto. Since Sindhi has in fact vowels ɛ and ɔ in its system and Balochi has no short vowels in the mid positions, we may prima facie identify Balochi as the language which has influenced Brahui. Unless and until other evidence is found, this may be taken as the correct solution.[5]

2.4 The circumstances within which this far-reaching case of structural borrowing could take place are discussed in chapter IV, esp. 4.5. Here a considerable body of Dravidian etymologies will be presented in which *e and *o have been replaced in Brahui by other vowel phonemes. There are divergent developments for both phonemes, and at present it is impossible to find conditioning contexts for the divergences, i.e. to establish in the reconstruction conditioned allophonic divergences or any other factors which could have led to splitting. All that seems clear is that the well-attested, extensive bilingual situation of Brahui and Balochi provided on one side a vowel system which had no short e and o, and that the Brahui system was remade in a Balochi pattern, with all instances of short o replaced by other phonemes and all instances of short e in initial or accented syllables replaced by other phonemes. We do not yet know the origin of those instances of short e that appear in nonaccented syllables, nor in fact do we know the origin of the instances of ē in unaccented syllables or in accented, noninitial syllables.

2.5 It will not be necessary to present in detail all the vowel correspondences between PDr. and Brahui. For most, the correspondence with a few examples will suffice. The Brahui index in *DED* provides easy access to many examples for most of the correspondences.

2.6 PDr. *a: Br. a; e.g., *DED* 973 xan 'eye': *kaṇ; *DED* 1209 xan- 'to see': *kaṇ- (~ *kāṇ-), e.g., Te. kanu.

2.7 PDr. *ā : Br. ā; e.g., *DED* 3370 pālh 'milk' : *pāl; *DED* 4385 bā 'mouth': *vāy (for loss of y in a similar context, cf. 2.26, *DED* 1842). A notable, and still unexplained, exception is *DED* 2612 tēn 'self': *tān.

2.8 PDr. *i: Br. i; e.g., *DED* 4449 bil 'bow': *vil; *DED* 401 iraṭ 'two': *iraṇṭ-, *iraṭṭ-.

2.9 PDr. *ī: Br. ī; e.g., *DED* 473 hīn- '(animal) bears young': *īn-; *DED* 3057 dīr 'water': *nīr.(~*īr). Still unexplained in detail is the late (pre-Brahui) change of ī>ē in *DED* 1348 kēragh 'lower side, under, below,' alongside the three forms prefixed to verbs ki-, kī-, kē- 'below, down': *kīṛ (~ *kiṛ-); PDr. *k- is represented by Br. k- before ī, but became x- before *ē, so that it is necessary in this instance to posit the change ī>ē after the change of *k[ē->x- had been finished.[6]

2.10 PDr. *u: Br. u; e.g., *DED* 1429 xutt- 'to dig, probe': *kutt- 'to pierce, dig'; *DED* 4057 mutkun 'old': *mut/tt-.

2.11 PDr. *ū: Br. ū; e.g., *DED* 2154 cūp- 'to suck': Ta. cūppu, etc.; *DED* 647 (h)ūl- 'to howl' : *ūḷ-.[7]

2.12 For the mid vowels which are the chief subject of discussion in this chapter, the data are presented in full. When there is splitting of the PDr.

phonemes, it has proved impossible to find the contrastive conditions. The examples are so few in number that, though it would be possible at times to make statements, each statement would cover one instance only, and such ad hoc statements are not methodologically cogent nor likely to be valid.

2.13 PDr. *e: Br. (1) a, (2) i. There are no examples of Br. ē for PDr. *e.

2.14 (1) PDr. *e: Br. a. There are eleven certain instances and a few less certain.

DED 451 hanēn 'sweet': *en- (Te. emme 'beauty, charm', Malt. embe 'sweet')~ *in- (Ta. iṉ- 'sweet, pleasant', etc.).

DED 702 ar-, allomorph of ann- 'to be': Kol. Nk. Pa. Ga. er- 'to become'; cf. 3.24.

DED 710 hal 'rat': *eli.

DED 723 harf- 'to raise, lift up, carry': Ta. eṟu 'to rise', eṟuvu 'to cause to rise', Ka. eṟ 'to rise', eṟvisu 'to raise, life up', etc.

DED 1645 xaf 'ear': *kevi.

DED 2002 kah- (kas-, kask-) 'to die': *ce- (<*c̆ēy-).[8]

DED 3109 darō 'yesterday': *ner/r̲- (~ *nēr̲-).

DED 3127 dar-, da (:dann-) 'to cut, take away': Ta. Ka. nēr- 'to cut off' (~*ner-[vowel suffix).[9]

DED 3608 paṭṭī 'female': Ta. peṭṭai 'female of animals and birds, woman, girl', etc. (*peṭṭay).

DED 4228 a- interrogative stem: *e- (~*yā/ē-).

DED 4234 kan- lsg. personal pronoun oblique stem: *en-; Br. k- in kan- is still unexplained.

Somewhat doubtful are:

DED 379 (h)aṛs- 'to turn something back or round, change, get back again, recover, (disease) attacks again', haṛsēng- 'to turn oneself back, return, turn oneself round, take a turn, turn (of milk), be turned (of the stomach)', haṛsēf- 'to make to return, withhold': Ta. iṭai 'to make room, get out of the way, retreat, fall back,' Ma. iṭayikka, iṭekka 'to disunite, separate', Te. eḍayu 'to be separated or disunited, remove,' eḍapu 'to break, separate, disunite', eḍagillu 'to stand aside, get out of the way', Malt. eṛare 'to keep aloof, get away', eṛatre 'to separate, remove'; the Malto forms would seem to be evidence for PDr. *e.[10]

DED 777 arē 'male individual, person, husband': Ta. ēṟu 'bull, male of certain animals', Ma. ēṟu 'bullock', Ko. e·r 'male buffalo', To. e·r̲ id., 'bull'; to relate the Brahui form to those in the other languages it is necessary to set up two allomorphs *ēr̲-: *er̲-[vowel suffix.[11]

Two instances are of extreme uncertainty because of failure of the evidence to allow a clear reconstruction of the PDr. vowel.

DED 1962 cal-, calēng- 'to become cracked, split': Tu. selè 'chink, crack', Te. selagu, selayu, (K also) selãgu, celagu, celavu 'to cut', sela 'hole', Kur. calkh- 'to open, uncover', Malt. calg- 'to split or break open'. It is unclear whether the PDr. vowel was *e or *a, since, although the Telugu evidence

seems fairly clearly to point to *e, there is no reason at present to think that the Kur.-Malt. evidence points to anything but *a.

DED 1956, 1961 Ka. calame, calime, cal(u)me, cilume 'orifice, bore, small pit, hole dug in the dry bed of a river or a dried-up tank, spring of water or a fountain head', jalugu 'place where water drops or oozes', Te. celama 'hole or pit dug for water in the dry bed of a river or rivulet, etc.', Pa. jalug, jalub 'place where water oozes', Kuwi (S) salma 'well', zalla (z=j) 'spring'. In spite of separation in *DED*, these seem to belong together. It was suggested in "North Dravidian Velar Stops" (etymology 6) that Br. kal 'place where water collects, waterhold' belongs with them, as it certainly might semantically. Discussion of the difficulties of the vowel of the first syllable and the general solution led to the suggestion, without certainty, that if the Brahui word belongs with the rest, it can only be on the basis of a reconstruction of PDr. *cel-, with *c[e->Br. k-, and *e>Br. a.

2.15 (2) PDr. *e: Br. i. There are fewer instances than for PDr. *e: Br. a, five certain ones and two uncertain.

DED 3106 ditar 'blood': Ka. nettar, Te. netturu, etc.[12]

DED 3613 pir- 'to swell (of the body or limbs)': *per- 'great, big', with numerous verbs 'to grow great, increase, swell, etc.'

DED 4169 mir- 'to plaster': *me̱r- 'to smear, daub (esp. with cowdung solution)'.

DED 4503 biṭ 'mound, hillock': Ta. viṭam, viṭari, viṇṭu 'mountain', Ka. beṭṭa, beṭṭu id., Koḍ. beṭṭa id., Tu. boṭṭu 'high, lofty; dry (as land)'.

DED 2815 *tir-, in negative stems tipp-, titt-, of cā- 'to understand, know': *tĕ̄r- 'to be understood; to understand'.

DED 4564 birr- 'to separate out, pick out, select, distinguish': *vē̱r- 'that which is separate, different, other'. The other languages have no verb forms. Moreover, all other forms have ē. It is necessary to invoke for Brahui alone an allomorph *ve̱r-[vowel suffix, the suffix having disappeared in the general loss of vowels in noninitial syllables (or should it be derivative syllables?); this, though possible, is unsatisfactory, since it still leaves much unexplained.

DED 659 hikk- 'to hiccough': Ma. ekkaḷikka id., ekkiḷ, ekkiṭṭa 'a hiccough', Tu. ekkade, ekkale id., Te. ekkili, ekku id. But Bray has pointed out IA and Iranian similarities, Bal. Lahndā hik-, and the Sanskrit root hikk-; cf. further Turner, s. vv. hikik, hikkā. It is at least possible that the Brahui word is not inherited Dravidian material.

Another possible instance is suggested in 3.25, fn. 21.

2.16 PDr. *ē: Br. ē. There are ten certain instances, two less certain, and one very uncertain.

DED 651 ē- 'that most remote': Kui ē- 'that nearer', Kuwi ē- 'that'.[13]

DED 723 hēf- 'to raise, lift up, carry' (=harf-, in 2.14): Ka. ē̱r 'to rise', Koḍ ë·ḷ- (ë·v-, ëdd-) id.

DED 766 (h)ēl- to spread out (carpet, clothes to dry, tablecloth)':

*ēl-∼*ēr̲-, esp. Ta. ēl 'to happen, be suitable', Ka. ēr̲ 'to be fit, suitable', Te. elayu 'to be produced, be suitable', ērcu 'to set in order'.[14]

DED 769 hēl 'knowledge, wisdom': Pa. (S) ēlc- 'idea occurs to one', Kui ēlu, elki 'mind, reason, thought, wisdom, remembrance', Kuwi (S) ēḍu 'wisdom'.

DED 2312 kēb 'nearness, vicinity; near', kēb kann- 'to approach': *cēr 'to become united, approach, etc.'; cf. especially the nouns Ta. cērppu, cērpu, cērvu, Ka. sēr(u)ve, Te. cērupu, of which the last means 'nearness'.[15]

DED 2855 tēl̲h 'scorpion': *tēḷ; Malt. téle.

DED 3127 dē- (:dann-, dar-, da) 'to cut, take away': Ta. Ka. nēr- 'to cut off'; cf. 2.14.

DED 3423(a) pēṛ- 'to wrap round, roll round, twine round': *pēṇ/r̲-; cf. Te. pēnu, pēḍu 'to twist, entwine'.

DED 3627 bē 'salt': Kur. bēk, Malt. béku id.

DED 4174 mēl̲h 'sheep': Ka. mēke 'she-goat', Pa. mēva, (S) mēya id., Ga. mēge 'goat', etc.[16]

Two instances are somewhat less than certain since the meanings are not immediately obvious. The etymologies should however be suggested; they are not in Bray nor in *DED*; [they were added in *DEDS* and *DEDR*].

DED 1670 xēr 'behind' (prep., adv.); xēr kann- 'to show one's back, run away': Te. krēvu 'a side', krē-, as in krēgannu 'outer corner of the eye', Pa. keri 'side', Kui kēri 'the side, flank'.

DED 1680 xēr 'open gravelly ground at the foot of a hill': Ta. cēr̲u 'mud, mire', Ma. cēr̲u 'mire, wet soil (for transplanting rice)', Ko. ke·r 'shallow tank, puddle', To. kö·r̲ 'lake, tank formed by dam', Ka. kesar̲ 'wet soil, mud, mire', Tu. kēḏu 'mud, soft clay'. The meaning given for Brahui at least implies an intermittent flow of water which would deposit the gravel; further inquiry in Baluchistan might substantiate this.

The following etymology is still problematical for lack of phonological parallels.

DED 2371 dē 'sun': Ta. ñāyir̲u, nāyir̲u id., Ma. ñāyir̲u, ñāyar̲u, ñār̲u (in such compounds as paṭi ñār̲u 'setting sun') id., To. nö·r̲ id. (in myths), Ka. nēsar̲(u) id., Tu. nesuru 'morning'. Krishnamurti, *TVB*, §§1.25 ff., 112 ff., has made it probable, (1) that after *ñ-, *ē is more probably original than *ā, and (2) that the course of development is probably *-c-$>$*-y-. Reconstruction of this word should, then, be *ñēc...r̲. The Tulu form nesuru should imply a shortening of the vowel of the initial syllable conditioned by the following syllabic structure. In fact, then, since Tulu nesuru is parallel with Ka. kesar̲ in *DED* 1680 (see above), To. nö·r̲ can be compared with kö·r̲ in *DED* 1680, and both can be taken as resultants of a sequence *-ey...r̲ ($<$*-ec...r̲). It cannot be pretended that unlike distributions of forms in the languages in these two sets can be explained at present. However, Br. dē 'sun' may well be representative of the sequence *-ey...r̲ rather than of a sequence with *ē, such as *-ēc/y...r̲. There are parallels to *ey$>$Br. ē (see 2.19),

and loss of *r̲ is paralleled by loss of *r in dē- (*DED* 3127, above in this paragraph). This solution has the merit of reconstructing fewer phonemes whose loss must be explained, whereas *-ēc/y...r̲ has one more phoneme that disappears (i.e., c/y).[16a]

2.17 In one example PDr. *ē appears as Br. ī. The group for 'red', *DED* 1607 has allomorphs *kē-, *ke- (possibly also *key-). Certainly the other North Dravidian languages have ē: Kur. k̲hẽ̆so, Malt. qéso. Br. xīsun (-un is an adjectival suffix) must be closely related in derivative morphology to the Kur.-Malt. forms; the other languages show no forms that are suggestive of an identical morphology. The problem, then, is why Brahui has ī in this form corresponding to Kur.-Malt. ē, when in other etymologies it has ē (e.g., *DED* 2855 and 3627, in 2.16).

It is just possible that the three NDr. forms represent an allomorph with ey. Such an allomorph possibly occurs in Ta. cey 'redness', ceyyāṉ, ceyyōṉ 'person of red or brown complexion', Pa. key 'dark red, reddish brown', though for this latter Burrow and Bhattacharya, *The Parji Language*, p. 3, assumed *c>y. If the allomorph is a possibility to operate with, we could assume PDr. *ey: Kur. Malt. ē, Br. ī, and in fact one etymology gives clear evidence for Kur. ē: PDr. *ey, though Brahui unfortunately has no cognate and the Malto form is very difficult to interpret phonetically or phonemically: *DED* 3104 *ney 'ghee, oil, fat': Kur. nẽ̆ta, Malt. neṉya. This is highly inconclusive, and in fact the two divergent Brahui representatives of *ey presented in 2.19 make this suggestion of a third one seem improbable.

It is to be noted that xīsun is the only form in which a presumptive *ē is followed by NDr. s (<PDr. *c). Is this the conditioning factor for Br. ī: *ē? Possibly, but there are neither contrary examples nor other examples to back up this ad hoc statement.

2.18 A prima facie parallel to the last etymology is *DED* 4234 ī 'I': Kur. Malt. ēn. However, in several details this differs from the 'red' word. No s follows the vowel, so that this cannot help in determining a conditioning factor. There are, moreover, no parallel sets with *n following, so that it is discouraging to try to identify this as a conditioning factor.

It is to be observed that for PDr. it is necessary to reconstruct *yā/ē- in this pronoun.[17] It would be pleasing to find that the correspondence is PDr. *yā/ē-: Kur. Malt. ē-, Br. ī-. However, two etymologies show that the correct statement is PDr. *yā/ē-: Kur. Malt. Br. ē-. One is *DED* 4229: Ta. yāṭu, āṭu (obl. āṭṭ-) 'goat, sheep', Ka. āḍu 'goat', Te. ēḍika 'ram', Go. ēṭī 'she-goat', Kur. ēṛā id., Malt. éṛe id., Br. hēṭ id. The other, *DED* 4228, is slightly different in its relevance. This is the interrogative pronoun, Br. dēr, dē. A stem *yā/ē- must be reconstructed, but y- occurs more widely than in the case of other similar words, and Kannaḍa, Tulu, Kota, and Koḍagu have some forms with d-.[18] This d- and that in Brahui cannot be equated (as Burrow demonstrated, loc. cit. 600). No initial d- of Brahui can be demonstrated to belong with an initial dental stop of other Dravidian languages; all

the sure Dr. etymologies for Brahui words with initial d- show Dr. *n-.[19] In fact, Brahui d- here belongs with the initial n- of Kur. Malt. nē-. We must assume that the pronominal stem shows *yā/ē-: NDr. ē-, and that this whole NDr. group has n- (of whatever origin) as its own secondary peculiarity, Brahui then showing *n->d-.

To return to the disturbing 1sg. pronoun, Kur. Malt. ēn is the expected form (<*yā/ēn). We cannot explain on the basis of regular correspondences either the loss of -n in Br. ī, or the vowel quality. A solution which will explain both points is analogy with the 2sg. pronoun nī (*DED* 3051), which is phonologically regular in all details (PDr. *nī). This would seem to be the simplest explanation. Certainly, the 'red' word and the 'I' word do not in any satisfactory way back up one another in necessitating a nonce-statement PDr. *ē: Br. ī.[20]

2.19 Before leaving the mid front vowels, it will be profitable to state what is now known of the Brahui representation of PDr. *ey. It is possible so far only to make a statement for this combination in initial syllables. There seems to be good evidence for two developments.

(1) *ey: Br. ī. Three instances were discussed in "New Brahui Etymologies" sections 3 and 4.

DED 693 hin- 'to go': Ta. eytu, Ka. aydu, Te. ey(i)du, ēdu, etc.

DED 2526 tin-, tir-, ti· 'to give': Te. tecc- (<*tey-cc-).

DED 3610 pir 'rain': Go. pirr, Konḍa piṟ, Ta. pey, peyar, etc.

(2) *ey: Br. ē. The first two examples were mentioned loc. cit., section 3.

DED 2526 tē- (allomorph of tin- 'to give'): *tey-.

DED 1628 kē- (allomorph of kann- 'to make'): *key-; see further below in 3.19, 26.

DED 2371 dē 'sun': *ñey...ṟ; see 2.16, last etymology there discussed.

No conditions appear for the divergent developments.[20a]

Other possible occurrence cf *ey are in 2.21 and 3.25, fn. 21.

2.20 A new etymology connects Br. hīt 'talk, conversation, promise, matter (talked about)', hīt kann- 'to talk, discuss, say things about one', hīt-mīt[21] 'conversation, gossip' with *DED* 398, Ta. iyampu 'to sound, say, utter', iyakku 'to cause to sound', iyam 'sound, word, musical instrument', icai 'to sound, express, signify', n. 'sound, noise, word, fame, song', Ma. iyampuka 'to sound', Kui ēsa 'to sing, recite, relate, tell, say', n. 'act of singing, relating, telling'. Brahui ī is not to be connected with Kui ē. The derivational morphology is: *ēc- (Kui ēs-)~*ec-[vowel suffix; *ec-ay>Ta. icai; *ec->*ey-; *ey-a->Ta. Ma. iya-. It is not certain what must be taken as the basis of the Brahui form; is it *ey- or *iy- or even *eya-? There are no parallels so far.

2.21 One Brahui set shows very complicated etymological possibilities, which can hardly be solved completely yet. This is the verb pair bēn- 'to wear, put on', bēnif-, bērif- 'to make to wear, clothe, thatch', and the noun bei 'grass or any shrub fit for grazing'. These have been put in *DED* with 4552,

4565, 4569, and even 4179, because of the varying possibilities; bēnif- was omitted entirely in *DED*.

DED 4552 Ta. vēy 'to cover (as a building), roof, thatch, put on (as a garland)', mēy 'to cover fully, thatch, roof', Ma. mēyka 'to thatch, tile', Ko. ve·j- 'to thatch', To. pe·y- id., Tu. bēpuni id., Te. vēyu id., Kol. ve·nz- id., Nk. vēnj- id., Pa. vēñ- id., Ga. (S) vēng- id., Go. wēsānā id., Kui vega id., vīa 'thatch grass', Kur. baĩnā, bēnā 'to cover with tiles, thatch, etc.', mesgā 'roof, esp. thatched roof', Malt. bese 'to thatch', mesge 'thatched roof'.

DED 4565 Ta. vai 'to put, place, lay up, store up, keep', Ma. vekka 'to put, lay, place, build, keep, deposit', Ko. vay- 'to keep, place, beget, bear (child)', To. poy- id., Ka. bay, baycu, baccu, oy 'to deposit, put aside, hide', Koḍ. bey- 'to keep', Tu. bijiluni, bijeluni 'to bear (child)', Te. vaicu, vayincu 'to place, put', vēyu id., 'put on (as a dress)', Ga. (S) vang- 'to give birth to', Go. wahtānā, (SR) vāhānā 'to bear (of animals)'.

DED 4569 Ta. vai 'straw of paddy, grass', vai-kkōl 'straw of paddy', Ma. vai-kkōl 'straw', Tu. bai id., Ga. (Oll.) vēvel (pl.) id.

DED 4179 *mēy- 'to graze', with various noun derivatives with suffixes.

Considering the clean division that is possible between the meanings in 4552 and 4565, it seems necessary to divide the sets, taking Te. vēyu to be two homophones, and further to consider that Br. bēn- 'to wear, put on' goes with 4565 (where Te. vēyu has this meaning) and that Br. bēnif-, bērif- is to be divided between 4565 ('to make to wear, clothe') and 4552 ('to thatch'). The PDr. reconstruction for 4565 is clearly *vay- >*vey- (>Te. vē-), and that for 4552 * v̆ēy-,there being no quantitative distinction before y, except for a and ā.[22] In Brahui, then, bēn- represents *vey- (4565), and bēnif-, bērif- both *vey- (4565) and *v̆ēy- (4552) (further discussion in 3.30). This would seem to be another instance of the second development of *ey in 2.19. The noun bei in meaning might go best with the m-verb of 4179. However, it would seem most economical to match its b- with the usual *v-, and the meaning of 4569 is close enough. Here again we have to deal with PDr. *vay>*vey. Why does bei show a third development of *ey (2.19 gives i and ē)? Is it the development in word-final position? None of the other instances shows this particular context. But again, an ad hoc statement is unsatisfactory. [See now *DEDR* 5093 and 5553 (for bei), 5532 and 5534 (for the homophones bēnifing, bērifing; bēning is only in 5534), and 5532, 5534, and 5549 (for Telugu homophones vēyu).]

2.22 PDr. *o: Br. (1) ō, (2) u, (3) a. This is in part parallel to what has been shown for the front vowel, i.e., raising of PDr. *e and *o to Br. i and u, and lowering of PDr. *e and *o to Br. a, but in part unlike, in that there are good examples of the lengthening of PDr. *o to Br. ō, but none at all of PDr. *e to Br. ē.

2.23 (1) PDr. *o: Br. ō. There are four certain instances.

DED 2865 tōr- (:tōn-, tō) 'to hold, keep, maintain, keep back, restrain': *toṭ-.

DED 3656 pōgh 'charcoal': Te. boggu, etc.

DED 3663 pōs 'vulva': Ta. poccu, etc.

DED 3714 pōling 'stain, stain on one's character'. Tamil has pul 'meanness, baseness', puṉmai id., 'uncleanness', which ought to mean PDr. *u. Its form pulai 'baseness, vice, outcaste' and Ka. pole 'impurity of menstruation and childbirth, defilement, meanness' (and similar Koḍagu and Tulu forms) are not diagnostic for either *o or *u. On the other hand, Tamil has also polam 'badness, evil', and pollā 'bad, vicious, evil', and derived forms, and Kannaḍa has pol, polla 'meanness, badness, noxiousness'. These last should mean PDr. *o.[23] One or the other must be secondary. In accordance with the general usability of Central and North Dravidian material in making a decision in such instances, Br. pōling is to be taken as evidence for PDr. *o.

Another instance is probably to be seen in 5.4; [a proto-North Dravidian 'non-past'/'future' suffix *-o- is based on Kuṛux -o-, Malto -o-, Brahui -ō- in 5.4 and in P.S. Subrahmanyam, *Dravidian Verb Morphology* (Annamalai University, 1971), p. 306].

2.24 (2) PDr. *o: Br. u. There are three certain and two uncertain instances.

DED 2324 cuṭ 'a drop', cuṭṭ- 'to drip': Ta. coṭṭu, etc.[24]

DED 2353 curr- 'to flow, gush': *cōr∼*cor-[vowel suffix.

DED 3686 putunk 'bundle, knot': *pot/tt-; cf. Ta. pottu 'to cover, close', n. 'covering, closing up', poti 'to cover up, tie up (as a bundle)', n. 'bundle, fastening'.

An uncertain instance is:

DED 2866 durr- 'to dare, venture': Ta. toṭu, etc. This is discussed in fn. 19, with reference to the difficulty of the initial stop; [now certain].

A possible, but not at all certain, instance is:

DED 2221 cugh 'nape of the neck': Ta. cuval id., 'back', cekil 'upper part of the shoulders', Ka. tegal 'shoulder,' Kui sukoṛi, sukoli 'shoulder-blade'. The forms with e may be evidence for *o. This group has been discussed in "North Dravidian Velar Stops", p. 10.[25]

2.25 (3) PDr. *o: Br. a. There are two instances, one of which is queried in *DED*, but both of which can hardly be anything but certain.

DED 834 asiṭ 'one (entity)', asi 'one' (adj.): *oru (<**oṟu), *onṟu, *orṟu. For discussion of problems, see "Numerals in Comparative Linguistic"; in spite of demonstrated mutual influence between numerals, there seems to be no possibility of a- representing anything but *o- in a quite straightforward way.

DED 1772 xall- 'to strike, kill, fire (gun), throw (stone)': *kol- 'to kill'. Only Tamil has a wider range of meanings: 'to kill, destroy, ruin, fell, reap (as the heads of grain), afflict, tease', which certainly does not coincide completely with the Brahui range; but there can be no real difficulty about the meanings.[26]

2.26 PDr. *ō: Br. ō. There are seven certain instances, and one somewhat uncertain.

DED 475 ō 'this, that (intermediate in distance)': Kui ō adj. 'that (at the greatest distance)'. In "Brahui Demonstrative Pronouns" it was stated that 'until and unless we find contradictory evidence from a complete investigation of the vowels of these two languages', there is nothing against taking the o-demonstratives of these two languages with the u-demonstratives of other languages. Evidence now seems to be complete that Br. ō cannot be derived from PDr. *u or *ū; for the moment, however, pending investigation of Kui and Kuwi, we may be content with finding that Brahui and Kui in this pronoun are evidence of PDr. *ō. [But it seems certain now that Br. ō is a borrowing from Indo-Aryan or Iranian; see *DEDR* 923.]

DED 1817 xōshk-, (local variant) xōsh- 'to rub': Kur. kh̃ōs-, Malt. qós-.

DED 1842 xō 'cooking-pot': Ta. kōy 'vessel for taking out toddy', To. kwa·y 'bamboo pot used at ti·-dairy', The loss of -y after a long vowel in Brahui is paralleled by *DED* 4385 bā 'mouth': *vāy.

DED 2242 cōsh- 'to soak, steep; wash by rubbing, scrub': Kui jōga 'to wash clothes'.

DED 2926 tōla 'jackal': Ta. tōṇṭāṉ 'wolf,' Ka. tōḷa id., Tu. tōḷu id., Te. tõḍēlu id.

DED 3706 pōrr- 'to hatch': *pōr- (Pa. pōr-)∼*por-[vowel suffix (Ta. pori, Ma. porunnuka); the Brahui form is more economically taken with the former than with the latter allomorph, since the latter requires assumption of a vowel suffix and then loss of it without trace (not, to be sure, impossible).

DED 4219 mōṭ 'foolish': Ta. mōṭu, Ma. mōṭṭu, Ka. mōṭa, Te. mōṭu.

DED 4215 mōlh 'smoke': Kur. mōjkhā, mōsgā id., moj°kh-, mos°g- 'to smoke anything, fumigate', Malt. mog- 'to smoke, emit fumes', mogj- 'to fumigate'. This has been discussed in "New Brahui Etymologies", section 5, and the priority of the Malto forms pointed out. However, there is still uncertainty about the vowel quantities, and, as far as can be told now, Br. ō might represent either *o or *ō.[27]

2.27 Br. mōn 'front, face; in front of; straightway, ahead', and mōnī 'being in front' were put with *DED* 4119 *mun 'in front', etc. The vowel ō now seems to present considerable difficulty, since *u does not yield Br. ō. Curiously enough also, *DED* 4119 does not contain instances of the meaning 'face' apart from that for the Brahui word (which was omitted for economy's sake). For the 'front, face' combination it is necessary to look to *DED* 4003 Ta. mukam, etc. This entry contains derivatives such as Ta. Ma. mukappu, Ta. mukari, mukaṉai, Ma. mukana, mukaṟu. Contraction of -uka- to -ō- yields Ta. mōrai 'face, chin', Ma. mōr 'face', Ka. mōṛe id., Tu mōrè id., Te. mōra 'face or head, generally of the lower animals'. Beside Ta. mukaṉai, Ma. mukana, we should expect *mōnay or even *mōn. One of these may be the origin of the Brahui form. Unfortunately, there are no other instances

of *-uka- or *-uva- represented in Brahui, and this can be only a guess; but it does seem to avoid a difficulty in Brahui vowel correspondences.[28]

NOTES

[*This is chapter II of *Brahui and Dravidian Comparative Grammar* (abbreviated as *BDCG*), and paragraph numbers begin with 2. to indicate the chapter. When there is another chapter reference, as in §2.4, second line, it is to another chapter of *BDCG*. Bray's transcription *kh* has been replaced by x, as in *DEDR*.]

1. In the *Grammar* he wrote it always without diacritic for simplicity, but in the *Vocabulary* always with diacritic.

2. Presumably Bray was correct in finding contrast between e and ē in nonaccented, noninitial syllables. He does not actually present minimal, or near-minimal, contrasts for this as he does for the other pairs of short and long vowels (p. 24). However, contrast is explicitly given for such pairs as the optional variants of the 2sg. imperative in a few verbs, e.g., illing 'to leave'—ille, illē (§§194, 265), and is implied by the verb paradigms, which would result in bise 3sg. present indefinite and bisē 3sg. past of bising 'to bake', and similar forms for some other verbs.

3. I am indebted to Mr. Lachman Mulchand Khubchandani for making available to me a copy of his University of Pennsylvania M. A. thesis (1961) entitled "The Phonology and Morphophonemics of Sindhi." On Lahndā the LSI information hardly allows a sure conclusion on this matter.

4. Balochi: Wilhelm Geiger, "Lautlehre des Balūčī", *Abhandlungen der philosophisch-philologischen Classe der k. bayerischen Akademie der Wissenschaften* 19 (1891). 397-464, esp. 403 ff., and in *Grundriss der iranischen Philologie* 1.2 (1898-1901). 231-248: G. W. Gilbertson. *The Balochi Language* (1923). 2-7. I doubt very much whether the Balochi vowel system is really as simple as these accounts make it; there is a suspicion that the simplicity results from a naïve transcription of the Perso-Arabic writing of Balochi, but I cannot arrive at anything better. Pashto: Wilhelm Geiger in *Grundriss der iranischen Philologie* 1.2 (1898-1901).201-230: Herbert Penzl, *A Grammar of Pashto* (1955).14 ff.

5. Georg Morgenstierne, *Report*, p. 7, says: 'It is interesting to note that the phonetical system of Brahui is nearly identical with that of Bal. The vowels, short and long, nasalized and unnasalized, are the same.'

6. See Burrow, *BSOAS* 11.136.

7. See "New Brahui Etymologies", section 2, and Bray, s.v.

8. See "North Dravidian Velar Stops", ety. 8.

9. See "New Brahui Etymologies", section 1.

10. This etymology in *DED* does not contain the Brahui form; [it was added in *DEDS* and *DEDR*].

11. A beginning of the analysis of such allomorphy was made by Bh. Krishnamurti, "The History of Vowel-length in Telugu Verbal Bases", *JAOS* 75 (1955). 237-252. Its occurrence in nouns still needs detailed examination.

12. In the paper "New Brahui Etymologies", section 3, instances of PDr. *ey were investigated. It was judged there (fn. 16) that Ta. neyttōr 'blood' (with ey) is probably a popular etymology (ney + tōr). All other evidence looks to PDr. *net...r.

13. See "Brahui Demonstrative Pronouns."

14. The Brahui word was not given in this entry of *DED*; its etymology was first presented in "New Brahui Etymologies", section 2; [it was added in *DEDS* and *DEDR*].

15. For the vowels of this set and of related sets with ā (*DED* 1195, 2006, 2030, 2037), see "North Dravidian Velar Stops", ety. 7a.

16. The Brahui word was not contained in this etymology in *DED*; its etymology was

given and discussed in "New Brahui Etymologies", section 5. [It is still without etymology; see "Brahui laterals from PDr. *r" and *DEDR* 5087.]

[16a. In *DEDS* dē was shifted (as suggested by Bh. Krishnamurti) from 2371 to 3128 Ta. Ma. nēram, etc., since this connection yields more economical statements of phonological developments. P.S. Subrahmanyam, *Indian Linguistics* 34.144 (1973), would still prefer connection with 2371, but notes that the two entries might be related; this is possible, even though the alternation of *r and *ṛ still needs explanation. In *DEDR* dē is listed in entry 3774 (*DED*(*S*) 3128).]

17. See especially Burrow, *BSOAS* 11.596 ff. for this and the two following etymologies.

18. Gondi has b- in all forms, which provides a diagnostic isogloss for all Gondi dialects as opposed to such a Gondoid language as Koṇḍa. b- is still unexplained; [but see now Burrow and Bhattacharya, *Indo-Iranian Journal* 6.252 (1963), and *DEDR* 5151].

19. See for the most complete list, "New Brahui Etymologies", Section 1; [see there, n. 8, for the final solution of the problem presented by *n>Br. d-]. *DED* 2866 presents with a query Br. durr-, durrēng- 'to dare, venture' as an etymon of the group Ta. toṭu 'to begin, undertake', etc., including Malt. toṛge 'to be in readiness for action'. This etymology is very tempting, both semantically and in all phonological detail except for this matter of the initial. No other etymology with initial *t- has the vowel *o following, and it would be possible to consider this the conditioning context for *t-: Br. d-. Such an *ad hoc* statement, however, is unsatisfactory, and the query must remain. [Three certain instances of *t->Br. d- are now known; see "Koḍagu and Brahui developments of Proto-Dravidian *ṛ", *Indo-Iranian Journal* 13.189 (1971), and *DEDR* 3178, 3399, 3481. *DEDR* 3766 has a possible instance marked with a query.]

20. So, contra Burrow, *BSOAS* 11.599, towards bottom: 'The northern languages are regular with ē- [for *yā/ē-] (which develops to ī in Brah. ī I; compare Brah. xīsun red: Kur. khēso).' Jules Bloch, *St. Gr.* 24, had already, as an alternative suggestion for the 1sg. pronoun, written: 'il est également possible que *ēn, passē à *ē, ait été assimilé à nī de la 2e personne.' [It must now be noted that the n- of nī is not 'regular', but is analogical to that of the genitive form nā and the 2nd plural num- (see Krishnamurti's paper referred to in 'New Brahui etymologies', n. 8); this however does not invalidate the suggestion for ī 'I'.]

[20a. For dē 'sun', see now n. 16a above. pir 'rain' cannot be directly compared with Ta. pey, peyar; see *DEDR* 4199, 4407.]

21. An echo-word formation with the pattern CX-mX. See Bray I.48f., and my papers "Echo-words in Toda", *New Indian Antiquary* 1 (1938). 109-117, "India as a Linguistic Area", *Language* 32 (1956). 3-16, esp. 10.

22. Bh. Krishnamurti, *TVB*, §§1.297-299.

23. See Bh. Krishnamurti, "Alternations i/e and u/o in South Dravidian", *Language* 34 (1958). 458-468. He does not treat this set there.

24. For discussion of this and the following instance with reference to *c[u->Br. k and the relative chronology involved, see "North Dravidian Velar Stops", p. 10.

25. *DED* wavered between 1784 and 2204 as a place for kubēn 'heavy, difficult, serious, dignified, expensive, precious'. The former would involve *o: Br. u. However, for the initial k-, membership in *DED* 2204 provides the best explanation, and I would now be more definite than I was in "North Dravidian Velar Stops" (ety. 2) in placing it there. It, then, is an instance of *u: Br. u.

26. This Brahui verb has such a wide range of meanings that it seems very probable that it is to be interpreted as a merger of several PDr. verbs. The meaning 'to lift (cattle)' seems to look to *DED* 1156, which includes verbs all the way from Ta. kaḷ 'to steal, rob' to Malt. qale id. The meaning 'to uproot, gather (vegetables, grass for fodder)' may go with *DED* 1157 Ta. kaḷ 'to weed, pluck'. Other meanings, such as 'to plant (a tree)' and 'to traverse (a road or pass)', seem unconnected with the rest.

27. *DED* 1859 xōl 'womb, offspring, entrails' clearly goes with both Kur. kūl 'womb, belly', kūlas 'offspring', and Malt. kóli 'abdomen'. However, Kur. and Malt. k- rather than kh- and q- is inexplicable, and the vowel relationship is difficult also. Are these words borrowed from IA? Cf. Hindi kol 'breast, bosom', kaulā, kolā, kaulī id., 'lap'<Skt. kroḍa-; cf. Turner, s.v. kolṭo. [See *DEDR* 2244.]

28. E.H. Tuttle in his review of Bray III, *JAOS* 56 (1936), 350-360, suggested relationship with Ka. mōṛe, but his further details seem untenable, except for the borrowing of muh 'front' from IA.

Chapter V

BRAHUI n/r VERBS*

3.1 One class of Brahui verbs, which show much 'irregularity', is here restated descriptively, and an attempt is made to trace the origin of the class from its diverse sources in Proto-Dravidian and elsewhere. It is, in a sense, an attempt to isolate the historical phonological and analogical factors which have led to the development of a substructure within the larger verbal structure of Brahui.[1]

3.2 The verb structure in general is statable in simple terms as follows.

3.3 The verb stem is either a root morpheme or a stem derived therefrom with one (or more) of a small class of suffixes denoting voice (passive, causative, neuter); e.g., haṛs- 'to turn (tr.)', haṛsing- 'to be turned', haṛsēng- 'to turn oneself, return', haṛsēf- 'to make a man turn himself', haṛsēfing- 'to be made to turn oneself'. The great majority of such roots or derived stems appear in one form each throughout the complete paradigm, i.e. there are no allomorphs. In a very few instances, there is allomorphy of a fairly trivial phonological nature; e.g., bin-∼bim-[p- 'to hear'; hall-∼hal-[p- ∞ halh̲ (i.e. ?aɬ, ɬ being a voiceless lateral) 'to take'. Occasionally there is allomorphy which is more striking and not to be described phonologically; e.g., kah- (i.e. ka'-) ∞ kas- 'to die'.[2] In a few verbs there is suppletion, i.e. allomorphy without partial phonological similarity; e.g., hin-∼him-[p- ∞ kā- 'to go';[3] cā- ∞ tipp-, titt- (negative stems) 'to understand'.[4]

3.4 Typical sets of inflectional forms with the verb stem (S) as nucleus are as follows (a very few have been omitted as adding nothing for the present purpose, and there is some simplification of the statement by omission of irrelevant allomorphy and subtypes):

I Infinitive: S-ing

II A-Present non-finite: S-isa

B-Probable future: S-ō-(personal suffixes)

III Imperative 2sg., with subclasses: (1) S

(2a) S-a

(2b) S-e

IV Present indefinite, with subclasses:

(1) S-i-

(2) S-ḗ- } (personal suffixes)

(Present-future=Present indefinite+terminal suffix)

**Brahui and Dravidian Comparative Grammar* (University of California Publications in Linguistics, 27), Chapter 3, pp. 21-46 (1962).

V Past stem, with subclasses:

(1) S-ā-
(2) S-ē-
(3) S-(k∼g)-
(4) S-(ss∼s∼is)-

(the past stem appears in four tenses, which are essentially periphrastic constructions with the present and past of the verb anning 'to be')

VI Negative: the stem (S) is enlarged by a suffix -i- in those verbs which in the imperative 2sg. (III) belong to subclasses 2a and 2b; following the stem, enlarged or otherwise, appears -p- in present-future tenses and prohibitive, -t- in past tenses; thereafter a negative suffix -a- (or some variant of it) appears in all forms. Subclasses:

$$\left.\begin{matrix}(1)\ \text{S-}\\(2)\ \text{S-i-}\end{matrix}\right\}+(\text{-p-, -t-})+\text{-a-}$$

3.5 Apart from the trivial allomorphy already mentioned, and that which is more extreme but very sporadic in its occurrence, there is a class of ten verbs which display one consistent type of phonological allomorphy which is anything but trivial (i.e. not assimilation or the like) and which occurs only in this class, viz., an alternation of root-final n and r. In addition, there are involved in this class several other types of allomorphy, some of which also occur only in this class. The verbs are presented in Table 1, with arrangement of the allomorphs and stems in six columns corresponding to the six sets (I to VI) already stated for the verb structure in general. Forms enclosed in brackets are suppletive, and of no relevance to the discussion following.

3.6 Verb 10, ann- 'to be', is defective in the forms represented by columns II and III, and in column IV has a form which is suppletive; in column VI also one of the forms is suppletive. Otherwise, the allomorphs in columns I, V, and VI, ann-, ar-ē-, ass-, aff-, place the verb in this class.

3.7 Verb 7, hatin-, etc. 'to bring', has so many variants at various places in the schema that it is given complete separately from the main body of the table, and in the table itself only those forms are listed which it will be argued are pertinent to the class as a whole. Historically it is a compound with verb 6 tin- as a second member and shows some similarity to tin- in its allomorphs.

3.8 The class was identified above by its n/r allomorphy. Apart from verb 10, it is unified by the lack of any subdivision into allomorph types in column II, i.e. in the present nonfinite form and the probable future stem; in this column all the forms end in r.

In all the other columns there is subdivision of the class into smaller subclasses, some of which are to be classed with the subclasses shown by other verbs in the language. No two of these columns coincide completely in their subdivisions, so that it is almost true that each of the ten verbs is sui generis in its allomorphic structure. The exception to this extreme statement is pro-

TABLE 1

The n/r verbs

I Infinitive		II Pres. non-fin., prob. future	III Imperative 2sg.	IV Present indef.	V Past stem	VI Negative stems
1 hunn-/hur-	'look'	hur-	hur	hur-i-	hur-ā-	hupp-, hutt-
2 tōn-/tōr-	'hold'	tōr-	tō/tōr	tōr-i-	tōr-ē-	tōp-, tōt-
3 pān-	'say'	pār-	pā/pār	pā-	pār-ē-	pāp- pāt-
4 kann-	'do, make'	kar-	ka/kar	kē-	kar-ē-	kapp-, katt-
5 dann-	'cut, take'	dar-	da/dar	dē-	dar-ē-	dapp-, datt-
6 tin-	'give'	tir- [ēt- optional prob. fut.]	[ēt-e]	tē- (dial.), [ēt-i-]	tiss-	tif-, tit-
7 [1]ha-tin-/-tir-	'bring'	ha-tir-	ha-ta/ha-tar	ha-tē-	[hēs-]	ha-tip-, ha-tit-
8 bann-	'come'	bar-	ba/bar	bar-ē-	bass-	baf-, bat-
9 mann-	'become'	mar-	ma/mar	mar-ē-	mass-	maf-, mat-
10 ann-	'be'	—	—	[u- present]	ass- ar-ē- (emphatic present)	[2]aff-, [all-]
7 ha-tin-/-tir		ha-tir-	ha-ta/ha-tar	ha-tē-		ha-tip-, ha-tit-
hatar-		hatar-		hatar-ē-		
hat-		hat-				hat-t-

[1]ha- < hall- 'to take'.

[2]Irregular in details; see fn. 8.

vided by the complete coincidence of 4 kann- 'to do' and 5 dann- 'to cut' in one structural type, and similarly of 8 bann- 'to come' and 9 mann- 'to become'. This in fact yields eight subtypes within the whole class of ten verbs.

3.9 Column I, the infinitive, is divided into two subtypes (1, 2, 7; 3-6, 8-10; not completely indicated in the table), since, although there is an allomorph ending in n or nn for each verb, verbs 1, 2, and 7 have also allomorphs ending in r, identical with the allomorphs in column II. Apart from this, three classes are identifiable on the basis of the phonemic shape of the ten n-allomorphs, viz., on the basis of the final consonant or consonants and their relation to the quantity of the preceding vowel. A tabulation of the distribution in general in Brahui of forms with n and nn at the end of roots shows that nn occurs only after short vowels and never after long vowels, and that on the other hand there is contrast after short vowels between n and nn.[5] Since there is such contrast (e.g., xan- 'to see': bann- 'to come'; tin- 'to give': pinn- 'to be broken'; kun- 'to eat': hunn- 'to look'), tin- cannot be classed with bann-, hunn-. The two roots with long vowel, pān- and tōn-, cannot be classed with either short-vowel set. There are in fact three subclasses on the basis of phonemic shape, or even four, since to class tōn- with any other of the verbs obscures the phonemic fact that there is no short o in the phonological system. This subdivision is not shown in the table, since it does not show a correlation with any feature in the other columns, except that in column VI stem allomorphs ending in long vowels have only -p-, -t- and not -pp-, -tt- (2 tō-p-, tō-t-, 3 pā-p-, pā-t-).

3.10 In column III, the imperative 2sg., verb 10 is defective. Verb 6, tin-, has a form ēte which is suppletive and not related to the other allomorphs of tin- in any way that is parallel to the allomorphy of the other verbs. This form belongs to the subclass 2b of the imperative 2sg., i.e. the stem is ēt-, which reappears as an optional stem (beside tir-) in the probable future and as the stem in the present indefinite in the standard dialect (subclass 1: ēt-i-). The implication of the presence of ha-ta, ha-tar in this column for verb 7 is that -ta and -tar are the missing, but structurally expected forms for verb 6.[6] Verbs 1 to 9 (minus verb 6) fall into two subtypes. Verbs 2 to 5 and 7 to 9 have optional forms, one identical with the r-allomorph of column II, the other shorter than this form by absence of r. The remaining verb, 1 hur-, has only the r-form; it is to be noted, for what it is worth, that in Brahui there are probably no words at all ending in short u, certainly no monosyllables. In verb 7, prima facie, hata/hatar, because of a in the second syllable, might be thought to belong with the variant forms hatar-, hatar-ḗ- in line 2, leaving the set hatin-/hatir- without any corresponding imperative forms. However, this type of double imperative should correlate with an n-form in column I (*hatan- beside or in place of hatar-), but no such form is recorded. If the imperative forms are removed from the variants of line 2, what is left is regular. If they are put in line 1, they fit with the n/r forms of column I, the only irregularity being the vowel quality of the second syllables. To bring

together all forms showing irregularities may in this instance be good descriptive method; it will certainly ease the historical statements later on.

3.11 Column IV, the present indefinite, shows more divergence from the general verb structure than any other column, and at the same time shows more subtypes within the class than does any other column. Two of the verbs, 1 and 2, belong to subclass 1 of the general description of verbs, which is in fact much the largest subclass of all verbs; i.e. these two verbs have the suffix -i-; this occurs with the r-allomorph of columns I to III: hur-i- and tōr-i-. Two of the verbs, 8 and 9, belong to the general subclass 2, i.e. they have the accented suffix -ḗ-; this occurs with the r-allomorph: bar-ḗ- and mar-ḗ-. Verb 7 similarly has among its variants hatar-ḗ- based on the stem hatar-.[7] Verbs 4 and 5 have in this column stems which fit neither into the subclasses just given nor into the allomorphy otherwise found in these two verbs: kē- and dē-. It would be possible to equate these monosyllabic forms, which bear the stress accent, with the accented second syllables of barḗ- and marḗ-, since an accented vowel -ḗ- is found in both types. This would imply analysis of kē- and dē- as k-ē- and d-ē-, with -ē- the suffix and k- and d- the stem allomorphs. The same type of stem is found dialectally for verb 6 tin-, viz., tē-, and for verb 7 ha-tin-/ha-tir-, viz., ha-tḗ-. In fact, however desirable the descriptive analysis just suggested might be for these three forms, it will turn out that it is not useful for the comparative analysis. Moreover, even on the descriptive level, it is necessary to note that beside the three monosyllabic forms kē-, dē-, and tē- (and its compound ha-tḗ-), which could be structurally equated with the disyllabic forms with -ḗ- like barḗ-, there are three other monosyllabic forms pā- (verb 3), cā-, and kā-, which are stems of present indefinite paradigms. kā- is the column IV stem of hin- 'to go', which except in IV is entirely regular. cā- (dialectally tiā-, tā-) 'to understand' is regular in columns I (cā-ing), II (cā-isa, cā-ō), III (1: cā), V (cā-is-); in column VI, the negative stem, there is suppletion (tipp-, titt-); in column IV there is the same irregularity that is found for pā- and kā- (for forms, see fn. 7). These three verbs are irregular in that they do not have the general suffixes classed as (1) and (2), nor anything similar to these suffixes. In other words they form a subclass, but of so few members that it seems uneconomical to attempt a descriptive analysis parallel to those in (1) and (2), i.e. into stem plus suffix. If it is uneconomical for this subclass, it is just as much so for the other small subclass, kē-, dē-, tē-. It may be noted further that pā- (verb 3) has the same vowel ā that is found in the other allomorphs of this verb pān-/pār-, etc., and it seems uncalled for to analyze pā- as p-ā- with a cut that is not necessary in the other allomorphs of the verb. All these five verbs 3-7 have in this column forms without n or r; 4-7 have the vowel ē, which is unlike a or i of the other allomorphs of these verbs. Four subclasses, then, are to be identified in column IV, stems with -i- (1, 2), stems with -ḗ- (8, 9), monosyllabic ē-stems (4-7), monosyllabic ā-stem (3). Forms in column IV that are irrelevant to

the problems now being discussed are verb 6's normal dialectal ēt-i- and verb 10's stem u-.

3.12 Column V, the past stem, has one verb, 1 hunn-, which belongs to the general subclass 1: hur-ā-, with suffix -ā-; its stem allomorph has r like the allomorph in columns I to IV. Four verbs, 2 to 5, have past stems of the general subclass 2, with suffix -ē-; they have r-allomorphs of the stem: tōr-ē-, pār-ē-, kar-ē-, dar-ē-. Four verbs, 6 and 8-10, have past stems which have been included in the general subclass 4, along with those verbs that have suffix -is- (e.g., pir- 'to swell': pir-is-) or suffix -s- (e.g., salī- 'to stand': salī-s-). The four verbs with which we are concerned have stems tiss-, bass-, mass-, ass-. Descriptive analysis is implied into suffix -ss- and stem allomorphs ti-, ba-, ma-, a-. The forms ba and ma (without suffix) occur as optional imperative 2sg. forms in column III (cf. also Bellew's ti-bo in fn. 6); these forms may be regarded as justifying this descriptive analysis of the past stems. Verb 7's past hēs-, even though it is suppletive, is also to be included in this subclass. It is probably to be analyzed as a compound of ha- (seen in ha-tin-, etc.) and the stem ēt- found as an allomorph of tin- in columns II, III, and IV; before the past suffix -s-, t is absent. In addition to this complete list of ten stems, verb 10, otherwise so defective, has in Bray's analysis no present indefinite, but a 'present' (stem u- with much irregularity in detail; see 3.29) and an 'emphatic present', which in form is a past with stem of subclass 2, based on an r-allomorph of the verb ann-, i.e. ar-ē-. In this column, then, there are three subclasses, a stem with -ā- (1), stems with -ē- (2-5, and the 'emphatic present' of 10) and stems with -ss- (6 and 8-10) or -s- (7).

3.13 The general description of the negative stems (VI) involves two subclasses, one with and one without -i- before the suffixes -p- (present-future tenses and prohibitive) and -t- (past tenses). Presence or absence of -i-, like the presence or absence of the imperative 2sg. suffixes -a and -e (subclasses 2a and 2b), with which the negative -i- correlates, can be stated partly in terms of the phonemic shape of the preceding stem, but only partly. E.g., all verb stems ending in rr have -i- (e.g., sarr- 'to grow up': sarrip-, gārr- 'to bleat': gārrip-). Verb stems ending in r, however, fall into two classes, those which have -i- (e.g., pir- 'to swell': pirip-), and those which in the imperative have a vowel only optionally and, correspondingly, in the negative have -i- only optionally (e.g., tar- 'to spin', imperative tar or tara, negative tarp- or tarip-). One important statement can be made about phonemic shape. Outside of the irregular class that we are treating, all monosyllabic verb stems with one exception end in a consonant. In the class now being treated the stem allomorph which precedes the suffixes -p-, -t- (or something similar) ends in a vowel; the allomorph in each instance is identical with the short form of the imperative 2sg., or, if there is no such short form (1 hur-/hunn-, 10 ann-), with the r-stem minus the final consonant. On the basis of allomorphs of the suffixes there are at least two subclasses, one in which the suffixes are -p-, -t- or -pp-, -tt- and one in which the suffixes are

-f- (or -ff-), -t-. In the first subclass -p-, -t- occur with verbs whose stem allomorphs end in a long vowel (2 tōp-, tōt-, 3 pāp-, pāt-) and with the disyllabic (compound) verb 7, whose stem allomorph ends in a short vowel (ha-tip-, ha-tit-). In this subclass -pp-, -tt- occur with monosyllabic verbs whose stem allomorphs end in a short vowel (1 hupp-, hutt-, 4 kapp-, katt-, 5 dapp-, datt-). To this last subclass also belong tipp-, titt-, the negative stems of the verb that was mentioned above as an exception to the general rule about the shape of monosyllabic verb stems that do not belong to the irregular class now being treated. The verb is the suppletive cā- 'to understand', which has already been given in some detail in the description of the present indefinite (column IV).[8] The subclass with -f-, -t- consists of verbs 6, 8, and 9, whose stem allomorphs end in a short vowel (6 tif-, tit-, 8 baf-, bat-, 9 maf-, mat-). The t of these verbs contrasts with tt of verbs 1, 4, 5, e.g., katt-. Moreover, tin- has tif-, but the compound ha-tin- has ha-tip-. No descriptive basis can be found for the contrast after identical short vowels between pp/p and f, nor for the similar contrast between tt and t. Verb 10, ann-, has aff- corresponding to the f-forms tif-, baf-, maf-; the declension of aff- is otherwise irregular.[9] Instead of *at-, this verb has the suppletive all-. Columns V and VI have a correlation of classes in that those verbs that have a past stem with -ss- (6, 8-10) have a negative stem with -f- (or -ff-).

3.14 The forms of verb 7, especially the variant forms given separately from the main table, require further statement. The 3rd line has hat- in columns I and II. In column VI there is a form hatt- which varies (apparently freely) with hatit-; hatt- is probably to be analyzed as hat-t- (rather than as ha-tt- parallel to katt-: kann-, datt-: dann-). This is not quite without parallel, since rūt- 'to reap, mow down' has negative rūtip- and rūtp- (according to Bray), and so presumably rūtit- and rūtt-; but it is such a rare type as to be peculiar.

Among the forms of verb 7, those in columns III, IV, and VI in line 1 admit of other analysis, according to more regular patterns than that of the n/r class. The imperative ha-ta (III) may be analyzed as of the general subclass 2a, i.e. hat-a. The present indefinite ha-tḗ- (IV) may be analyzed as of the general subclass 2, i.e. hat-ḗ-. The negative stems ha-tip-, ha-tit- (VI) may be analyzed as of the general subclass 2, i.e. hat-i-p-, hat-i-t-. In the rewriting in table 2 of this part of table 1, this reanalysis is indicated by repeating these forms in line 2. They are in fact the nucleus from which this complete regular series developed, the new, 'analogical' members being hat- in columns I and II. The analogical history is diagrammed by arrows leading into and out of the rectangle in which the repeated forms are enclosed with their reanalysis. Similarly, ha-tar in column III, reanalyzed as an imperative of subclass 1, i.e. a disyllabic stem with no suffix, is the nucleus for the new series in line 3, I and II hatar-, IV hatar-ḗ- (subclass 2).[10]

Once it is recognized how far-reaching the analogical developments have been in this verb, it is possible to suggest that in column VI, line 1, ha-tit- is

the expected form (cf. tit- of verb 8), but that *ha-tif- would be expected on the basis of tif- in verb 8. This would have been remade analogically after ha-tit- had been reanalyzed as hat-i-t- and a basic stem hat- had been created analogically. This is indicated in table 2 by an arrow pointing up from hat-i-p- in line 2 to ha-tip- (it could even have been *ha-tif-) in line 1.

TABLE 2

Verb 7 and its analogical developments

I	II	III	IV	VI
ha-tin-/-tir-	ha-tir-	ha-ta/ha-tar	ha-tē-	ha-tip-, ha-tit-
hat-	hat-	hat-a	hat-ē-	hat-i-p-, hat-i-t-
hatar-	hatar-	hatar	hatar-ē-	

In column VI hat-t- has been omitted, as a new and somewhat rare type of development from hat-i-t-. Column V is omitted entirely, since the only form to be placed in it, hēs-, is suppletive in any of the three sets.

Now that this statement has been made of the historical analogical developments from the irregular set to the regular sets of this verb, it will be possible to treat the original irregular set historically along with the other verbs of the class.

3.15 The historical treatment of the class requires first a statement of the etymologies.

		DED
1. hunn-	*un- (Ta. uṉṉu)	625
hur-/huri-/hurā-	*uṟ- (Ta. uṟu)	610
2. tōr-/tōri-/tōrē-	*toṭ-	2865
3. pān-	*pāṇ- (~*paṇ-[V)	3212
4. kē-	*key-	1628
[kann-	Bal. kan-]	
[kar-/karē-	Si. Lahndā kar-]	
5. dē-, dar-/darē-	Ta. Ka. nēr- ~ *ner-[V	3127
6, 7. -ta, -tar, tē-, tir-, tiss-	*ta, *tăr-, *tĕy-, *teyr-, Te. tecc-	2526
8. ba, bar-/barē-, bass-	*va, *văr-, Te. vacc-	4311
9. mann-, mar-	*man- (Ta. maṉṉu): **maṟ-	3914
mass-	Koṇḍa maR-, Kui mas-	
10. ann-	*ā- ~ *ān- (Kol. an-)	282
arē-, ass-	Kol.-Nk.-Pa.-Ga. er-	702

Nearly all of these etymologies are in the public domain of earlier scholarship, about half proposed by L.V. Ramaswami Aiyar or Bray, and

the remaining ones proposed in *DED*. The remainder either have been proposed in my earlier papers or are now proposed for the first time. As much phonological detail as possible has been worked out either in my earlier publications or in this monograph. The following paragraphs present details.

3.16 (1) hunn-, hur-. *DED* 610, 625 separate the forms with *n and *r̲, but give cross references, though with a query. The query was hardly justified, since the connection in meaning is very close, and morphophonemic alternation of alveolar *n and *r̲ in verbal bases is very common (cf. e.g., *DED* 2670 *tin-: tīr̲- in the simplex and the causative stems respectively). Both of the morphophonemic alternants appear in the Brahui verb (as they do also in verb 9; see 3.23).[11]

3.17 (2) tōn-, tōr-. The relationship of tōr- and *toṭ- is clear. For the vowel relationship, see 2.23. For PDr. *-ṭ-: Br. r and rr, cf. *DED* 929, 952.[12] The allomorph tōn-, which still requires explanation, is dealt with below.

3.18 (3) pān-, pār-. All the SDr. etyma and some of the others clearly show *paṇ-[V, e.g., Ta. paṇi 'to speak, etc.', Te. pan(u)cu 'to send, command', Kol. pank- 'to send'. It is a very tempting etymology for the Brahui verb, and it is methodologically sound to posit the allomorphs *pāṇ- ~ *paṇ-[vowel suffix. Kolami, surprisingly, has a noun pa· na 'language', which seems to show the basic allomorph with long vowel. Considering the occurrence of the long vowel in these two language only, i.e. Kolami and Brahui, the Kolami noun may be archaic and represent an original Dravidian word for 'language'.[13] The r-allomorph, which still requires explanation, is dealt with below.

3.19 (4) kann-, kar-, kē-. Of the three allomorphs, kē- is probably Dravidian and prima facie related to the common Dravidian *key-. The relationship PDr. *ey: Br. ē is one of the two (or possibly even three) correspondences for this PDr. combination, showing still unexplained divergences; see 2.19. The most difficult point in the etymology is initial k- instead of the expected x-, from PDr. *k- before *e. No explanation has yet been advanced for this irregularity. The explanation is fairly simple, though rather unexpected. Of the other two allomorphs, kar- is borrowed from Sindhi or Lahndā kar-, and kann- from Balochi kan-; kar- is found essentially only in Indo-Aryan and not in Iranian, and kan- in Balochi and certainly not in Indo-Aryan. Both of these have k- (rather than x-), which is almost universal as the representative of initial k- (and the aspirated stop kh-) in borrowings from Indo-Aryan and Iranian. Once these had been incorporated as allomorphs of this verb (through the analogy of the other n/r verbs; see 3.26), *xē-, if that was the form of the Dravidian continuant allomorph, became kē-.[14]

3.20 (5) dann-, dar-, dē-: Ta. Ka. nēr-. This etymology was proposed in "New Brahui Etymologies", section 1. Most of the phonological details were discussed there; the vowels are treated in 2.14, 16. Of the three allomorphs,

dar- and dē- are explained by this etymology,[15] and dann-, which still requires explanation, is treated below.

3.21 (6, 7) tin-, tir-, tē-, tiss-; hatin-, hatir-, hata, hatar, hatḗ-, etc. The complicated history of the 'give' verb with base *ta- and its extension with *-r- was dealt with in *Language* 21.184-213. The forms -ta and -tar in the compound verb hatin- were satisfactorily dealt with there. The simplex and compound forms with i and ē were not solved satisfactorily there and were dealt with again in "New Brahui Etymologies", section 4. In the latter paper, following *TPS* 1957.35-46, the past stem tiss- was related to Te. teccu, which had been dealt with by Krishnamurti as a resultant of the base *ta- plus derivative suffix -y-, the phonological sequence being *tay-〉*tey-. When the past suffix of palatal or sibilant form was added to *tey-, the Telugu resultant was tecc-, the Brahui tiss-. Parallel to *tăr-, we posit *teyr-, whence Brahui tir-. Without r, *tey- yields also Brahui tē- (and for the compound verb -tḗ-). Further analogical developments of the compound verb were treated in 3.14. It is now to be recognized that in the compound verb this language shows a unique combination of forms for this verb, namely imperative from base *ta-, but other forms from the derived base with -y-, which otherwise is found only in Telugu (and in Kurukh and Malto, if the two verbs of *DED* 2814, Kur. tai-/tēy-, Malt. tey- 'to send', are connected, as Krishnamurti suggests: see "New Brahui Etymologies", fn. 21).[16] All the forms of the simplex verb in Brahui belong to the derived base with -y-; the imperative is suppletive. The allomorph with n, which still requires explanation, is treated below.

3.22 (8) bann-, bar-, ba, bass-. The verb *va- with its extension *-r- was treated in *Language* 21.184-213 along with the 'give' verb. The Brahui imperative forms ba and bar, and the allomorph bar- were treated there. The treatment of the past stem bass- did not go far enough there. In *TPS* 1957.35-46 it was made clear that it entirely corresponds to Te. vaccu, with a past palatal or sibilant suffix. The allomorph with n, which still requires explanation, is treated below.[17]

3.23. (9) mann-, mar-, mass-. Alongside the stem *man- in *DED* 3914, its allomorph *mar- would be expected (cf. 3.16). This appears only in the Brahui allomorph mar-.[18]

The past stem mass- was taken in *TPS* 1957.35-46 to be parallel to tiss- and bass-, i.e. to be the resultant of a past formation with the past palatal or sibilant suffix, and Kui mas-, past stem of man- 'to be, exist, remain', was adduced (pp. 37 f.) as cognate. Now, however, closer examination of the evidence, especially that from Konḍa, which is closely related to Kui, has made it clear that the Kui verbs with n and l as final consonants in the bases and s in the past stem do not show in the latter the past sibilant or palatal suffix. The cognate Konḍa verbs have in their past stems voiceless alveolar r̲ (which *DED* wrote r̲h and which Krishnamurti writes in his field notes and

forthcoming publication R). The correspondence involved is PDr. *r̲r̲: Konḍa r̲h (=R), Kui s, Pa. tt, Ga. ṭṭ, Go. tt, etc.[19]

The Kui verbs are:

DED 737 inba (is-) 'to say', Konḍa in- (iR-);

DED 2670 tinba (tis-) 'to eat', Konḍa tin- (tiR-);

DED 3914 manba (mas-) 'to be', Konḍa man- (maR-), Pa. men- (mett-), Ga. (Oll.) man- (maṭ-), Go. mand- (perfect matt-);

DED 4472 venba (ves-) 'to hear, ask', Konḍa ven- (veR-);

DED 3563 punba (pus-) 'to know', Pa. pun- (putt-);

DED 2286 salba (sas-) 'to go', Konḍa sol- (soR-);

DED 4243 jelba (jes-) 'to pull', Konḍa (Burrow-Bhattacharya) r̲el- (r̲eR-).

From this it should follow, on the evidence from Pa., Ga., Go., Konḍa, and Kui, that Br. mass- represents *mar̲r̲-, as do the forms for that verb in those Central Dravidian languages. This involves a correspondence PDr. *r̲r̲: Br. ss, which would fill a slot left vacant in the table of correspondences in *DED* (p. xiii). Other examples of the correspondence would help to make it convincing. The only one found so far is in tūs-, past stem of tūl- 'to sit, seat oneself, remain sitting, wait, dwell, calmly to do something, be made to sit, remain a maiden (unmarried)'. In "New Brahui Etymologies", section 5, it was noted that this verb should be included in *DED* 2693: Ta. tuñcu (tuñci-) 'to sleep, drowse, rest without work, die, abide, stay, settle, hang (intr.),' tuyil (tuyin̲r̲-) 'to sleep, abide, stay, set as the sun, die', tuyir̲r̲u (tuyir̲r̲i-) 'to put to sleep, cause to stay'; Ma. tuñcuka 'to be entangled, sleep, die', tuyiluka 'to sleep'; Ka. sundu 'to lie down, repose, sleep'; Pa. tuñ-, (S) cuñ- 'to sleep' (<*tuñc-); Ga. (Oll.) tuñ- 'to go to sleep'; Go. (L, M) hunjānā 'to sleep'; Kui sunja (sunji-) id.; Kuwi (F) hūnjali 'to lie down', (S) hunzinai (z=j) 'to sleep'. There is not too great a difference in the meanings 'to lie' and 'to sit', and sufficient overlap otherwise, to make the semantic connection plausible enough. The basic Brahui form tūl- is morphologically equatable with Ta. Ma. tuyil- (the correspondence *uyi: Br. ū is not otherwise attested). The morphophonemic alternations to be expected are *tuyil-: *tuyin-: *tuyir̲-. All three occur in Tamil, the last in the transitive tuyir̲r̲u. Then, just as in Br. man-, the past stem mass- is equatable with *mar̲r̲-, so also tūs- is equatable with *tuyir̲r̲-. The variation s: ss would seem to be conditioned by the variation in quantity of the preceding vowels. Two examples may not be entirely convincing either for a phonetic or a morphological correspondence, but this is probably all that we shall ever have on these points in Brahui and they have a high degree of probability.

3.24 (10) ann-, ar-, ass-. In *DED* 282 ann- was connected with the verb *ā-, since the stem *ān- of this verb appears in Ta., Ko., To., Ka., Koḍ., and the short-vowel variant *an- in Kolami (along with a·n in the imperative). The vowel quantity variation between *ān- and *an- is not yet explained, though it may be noted that short a appears also in Ka. Te. agu, etc., Nk.

aṇḍ- and akk-, and Kui ag- (s.v. abga), as well as in the Kolami allomorph a- of the verb er- 'to become, happen'.

The Brahui allomorph ar- was given in *DED* 282 in the listing of allomorphs of ann-, even though there is no explanation in this group of etyma of the presence of r. In *Kolami, a Dravidian Language*, vocabulary item 217 er- 'to become', it was suggested that Br. ar- may owe its r to the verbs listed there as etyma of Kol. er-, viz. Nk. Pa. Ga. er- and the group of verbs represented by Ta. iru 'to exist, be in a place'.[20] *DED* separates these into two entries, 407 *ir- and 702 *er-, partly because Kol. -Nk.-Pa.-Ga. e- should not represent *i- of the other group, partly because of the meaning difference between the two groups ('to exist, be in a place' for *ir-, 'to become' for *er-).

The various verbs translated by English 'be' admit on the whole of fairly clean separation. *ā- is 'to become, be so-and-so', *ir- and *uḷ- 'to exist, be in a place', *er- 'to become', *man- 'to remain, endure, exist'. But it must be observed that, though these meanings seem fairly easily reconstructable, yet certain of the languages have clearly not kept such a clean separation. In Kur. Malt. Br. *man- has the meaning 'to become, be so-and-so', and Brahui has in addition the meaning 'to be in a place, be present' (Bray I. 188 bottom, 233 middle). In Kolami an- (<*ā-) means 'to be in a place, be so-and-so', which combines meanings of *ā- and *ir-; this was already noted in *Kolami, a Dravidian Language*, loc. cit. If we consider this lack of an immutable, clean-cut separation of the meanings, it seems possible to conclude: (1) that *ir- and *er- may in spite of the difference of meaning be dialectal (? PDr.) variants of one and the same verb, the alternation between *i and *e being still unexplained, but parallel to such alternations as that seen, e.g., in the forms for 'sweet', *in- and *en-, *DED* 451, or for 'to say so-and-so', *en- and *in-, *DED* 737; (2) that Br. ar- represents *er-.

This last conclusion is unexceptionable phonologically; for *e: Br. a, see 2.14. It is in fact the only phonological possibility, since *i cannot be represented by Br. a. If this etymology of Br. ar- is accepted, it implies that this language and the subgroup Kol. -Nk.-Pa.-Ga. have retained this form from PDr. Such a common retention cannot in itself point to a subgrouping that would mean close relationship for these languages.

The past stem ass-, unlike tiss-, bass-, and mass-, is only possibly relatable to a form in the other languages; it is discussed in 3.29.

3.25 Table 3 shows forms I to V of these verbs in a rearrangement that presents the inherited forms, those included in rectangles, in a fairly well unified block. The remaining forms, which are on the margins, are those that are analogically derived, or in the case of verb 4 borrowed.

Not everything in the history of the class can yet be explained. E.g., we do not yet know the origin of the present indefinite suffixes -i- and -ḗ-,[21] nor of the past suffixes -ā- and -ē-. In the past stems, even though a beginning has been made of an explanation of the suffix -ss- (*TPS* 1957.35-46), nothing

TABLE 3

Historical origins of allomorphs of n/r verbs

	I	II	IV	V	III
10	ann			ar-ē- /ass-	
1	hunn- /hur-	hur-	hur-i-	hur-ā-	hur
9	mann-	mar-	mar-ē-	mass-	mar /ma
8	bann-	bar-	bar-ē-	bass-	bar /ba
6	tin-	tir-	tē-	tiss-	
7	ha- tin-/ -tir-	-tir-	-tē-		-tar /-ta
2	tōn-/ tōr-	tōr-	tōr-i-	tōr-ē-	tōr /tō
5	dann-	dar-	dē-	dar-ē-	dar /da
4	(kann-)	(kar-)	kē-	(kar)-ē-	(kar) /ka
3	pān-	pār-	pā-	pār-ē-	pār /pā

All material within rectangles is inherited Dravidian material at leart as regards the stems.
Stems within ( ) are borrowed from non-Dravidian languages. All forms not within rectangles or ( ) are of analogical origin.

can yet be done to explain the membership of the various subclasses of the past stem.

3.26 The only verb which inherited all of its stem allomorphs is verb 1, which has only two forms, hunn- and hur-. Verb 9 inherited a parallel set of allomorphs, mann-/mar-, as well as mass-. In the table these two verbs are placed together, a juxtaposition which emphasizes their very great degree of parallelism in inheritance, and which also suggests the obvious conclusion that it was their n-forms, which alternate with their r-forms, that gave some other inherited r-verbs (8, 6/7, 2, 5) their n-forms in column I. Moreover, the presence of inherited bass- and tiss- in 8 and 6, parallel with mass- in 9 (even if the latter was of a different morphological and phonological origin from them) must have provided another impetus towards the analogical creation of bann- and tin-, i.e. mar-: mass-: mann- > bar-: bass-: *bann-; etc.

Certainly, moreover, once verb 2 had acquired the new allomorphy tōr-/ tōn-, and column I had both the old form tōr-ing and the new form tōn-ing verb 1 must have made beside its (presumably) old form hunn-ing the new form hur-ing.[22]

Verb 5 owes its allomorph dann- to the general parallelism of its r-allomorph with the r-allomorphs in verbs 1 and 9, but perhaps also to the additional parallelism in column IV of its inherited dē- with verb 6's inherited tē-.

Verb 4 inherited from PDr. only kē- (<*xē-; 3.19). The parallelism of

this with tē- and dē-, and the availability of IA kar-, caused borrowing of the latter (whence *x- to k-) and absorption of this verb into the pattern of this class. Once the kar-/kē- allomorphy was established, there took place also the absorption of the available Balochi kan- as kann- in column I. It is clear that the allomorphic system of the class, apart perhaps from the n-allomorph, was established before borrowing from non-Dravidian languages took place, or could take place, in this verb; whether this must mean that the system was established before there was any contact with non-Dravidian languages is less necessary. If we consider the general priority of r-allomorphs to n-allomorphs in the system, it is tempting (if not entirely cogent) to suggest that Indo-Aryan contact was earlier than that with Balochi.[23]

Finally, one verb, 3 pān-/pār-/pā-, inherited only the n-form. The other allomorphs must have been analogically developed, on the basis of the other verbs of the class, presumably (though not entirely necessarily) after the analogical development of the n-forms had taken place throughout the class. Why column IV shows pā-, rather than *pār-i-, *pār-ḗ-, or even *pē-, like the other verbs of the class, is inexplicable. Certainly, the relationship of pā- to the allomorphs pān-/pār- is different from the relations of the other two parallel forms kā- and cā-, the former to hin-, the latter, which is found in columns I to V, to *tir- of column VI.

3.27 In column III, the imperative 2sg., all the verbs except 6, which has nothing relevant, show a form ending in r, which is inherited in verbs 1, 9, 8, 7, 2, 5, borrowed in verb 4, and analogical in verb 3. In addition, verbs 8 and 7 have inherited alternative forms without r, i.e. ba and -ta. On the analogy of these two verbs, all the others except 1 hunn-/hur- have new alternative forms without r (ma, tō, da, ka, pā). This analogy must have worked independently of that which produced the n-forms, since the two analogies had their sources in different pairs of verbs, this in 8 and 7, that in 1 and 9. Quite strikingly, verb 1 did not acquire a form *hu. In 3.10 it has been noted that a hole occurs in the distribution pattern where final short u would occur; presumably this militated against the appearance of *hu.

3.28 The negative stems of column VI still need historical explanation. In the descriptive account in 3.13, they were analyzed into stem allomorphs ending in vowels (hu-, tō-, pā-, ka-, da-, ti-, ha-ti-, ba-, ma-, a-), and suffixes -pp-/-p-/-f-/-ff- and -tt-/-t-, the allomorphs included in each suffix being related partly phonologically and partly not.

A process analysis would be possible, in which the stem allomorphs ending in r would be used and morphophonemic simplification would reduce clusters -rpp-, -rtt-, etc. by loss of r. There are, in fact, parallels to this in the nouns, since before the plural suffix -k, nouns ending in r lose r (or, in the alternative statement, have an allomorph without r); e.g., mār 'son', pl. māk; dīr 'water', pl. dīk; kur 'flock', pl. kuk; (h)ōr 'finger', pl. (h)ōk. Such morphophonemic statements of the treatment of r before stops k and pp/p, as well as before f/ff, are also statements of internal reconstruction and can be extrapolated

backwards as historical statements. The present indefinite stems dē-, tē-, and pā- of verbs 5, 6/7, and 3 of this class must in all probability be explained historically by this type of statement. The 3sg. of the present-future ends in -k added to the stems dē- and tē-, and might well be taken as one place where r was lost (as it is in the noun plurals mentioned), i.e. *dēr-k>dēk. The forms of the present indefinite have been given in fn. 7 in this chapter; the present-future adds -a to forms of the present indefinite, except for the 3sg., in which -ik replaces -e (so pāik from pā), but dē- and tē- have -k, and except for the 2pl. which is identical in the two paradigms. There are no parallels known for loss of r before the consonants v, s, n, r of other endings in the paradigms, or before the vowels e and i. Is it possible that the 3sg. present-future in -k is the point where loss of r took place in verbs 5 and 6/7, and from which the allomorphs dē- and tē- spread throughout these paradigms, and that thence by analogy verb 3 lost r in pā- of column IV? It is a slight beginning for so much analogical reconstruction; yet stranger things have happened in historical linguistic developments.

There seems sufficient warrant, then, to consider the negative stems of this class as showing a historical simplification of -rpp-, -rtt-, etc. by loss of r. Not all verb stems ending in r show such a simplification; counterexamples have been pointed out in 3.13. A solution of this inconsistency cannot yet be given.

The much more important historical problem arises, whether there are parallels elsewhere in Dravidian to this type of morphology in the negative, i.e. stems with dental and labial suffixes, respectively past and nonpast (present-future and prohibitive), before the negative suffix -a- (or allomorphs of it). A few of the languages have parallels, but it is not yet possible to be sure of the PDr. state of affairs.

Most of the languages in the family have two simplex negative paradigms, the prohibitive and the negative ('indicative', not differentiated for tense). Kolami and Kui have in addition a past negative. In both these languages the latter formation consists of verb stem + negative suffix + past suffix + personal suffixes; in both the past suffix is -t-. In spite of the fact that this corresponds in form to the suffix -t- in the Brahui past negative paradigms, the order of the negative and past suffixes is different (Brahui: past suffix + negative suffix), and it must be concluded that these past negatives do not lead to a reconstruction of a past negative in PDr., at least not one that would include Brahui.

For the nonpast forms there are closer parallels to the Brahui formation with -p- + negative suffix, in Parji, Telugu, and Tulu.

In Parji the verbs that have -t- in the past and future paradigms, have -p- in other paradigms, including the negative and the prohibitive (in the southern dialect), and also in the nonfinite forms, gerund (with suffix -aka), adjective, and infinitive. All negative forms of this subclass show the order: -p- + negative suffix. This list of verbs is given in *The Parji Language*, pp. 45 ff.

In Telugu (Old Telugu) many of the verbs that have basic stem alternants in -cu have -p- or -v- replacing -c- in certain forms, e.g., the infinitive in -aN. These have the labial before the negative suffix in all negative forms (negative, prohibitive, negative gerund in -aka, negative adjective). For description, see Krishnamurti, *TVB*, §§3.24, 27.

The Tulu situation is not yet entirely clear. However, it seems that those verbs that have -p- in the infinitive form (e.g., maḷpuni 'to make, do'), the future (1sg. maḷpe), and the imperative (maḷpu̯), have it also in the future negative (1sg. maḷpaye) and the prohibitive (maḷpaḍa). In both the latter -p- is followed by the negative suffix.

It would seem tempting on the basis of four languages to consider reconstruction of PDr. forms with -p-+negative suffix for certain verbs, but it can only be sound to do so if upon comparison of the verb lists -p- appears in etymologically related verbs. However, so far it is impossible to make such a comparison with any certainty. Preliminary search in Parji, Telugu, and Tulu for forms that might match up with the Brahui negative stems that we are interested in is distinctly unpromising. The only certain parallel to any Brahui form is Tulu barp- 'to come', which may be comparable to Brahui baf-; even this may be phonologically impossible—why Brahui f rather than pp? It is necessary to leave the matter for the moment in this unsatisfactory state. It is just possible that the Parji, Telugu, and Tulu evidence may lead to reconstruction of PDr. negative forms with a labial+the negative suffix for certain verbs. If so, it might be possible to link the Brahui forms to the reconstruction. But the reconstruction must be based on specific etymologically related forms, which are not now at hand.

3.29 The irregular verb 10, ann- 'to be', has been ignored so far in the historical analysis, since it is so irregular and defective that it is difficult to regard it as having had much analogical influence in the formation of the class. It inherited the allomorphs ann- and ar- (3.24), the latter being found in one paradigm only, the peculiar 'emphatic present' of this verb.

The past stem ass- might be a product of analogy based on verb 9, i.e. mann-: mar-: mass-$>$ann-: ar-: *ass-. However, there is a good possibility that it is inherited. In §3.24 it was demonstrated that ar- is etymologically related to Kol.-Nk.-Pa-.Ga. er-. In "Toda, a Dravidian Language" (pp. 35-46) the past tense suffix *c/*cc was treated in detail, and it was pointed out (p. 42) that Parji has a subclass of verbs somehow related to the subclasses which in Kurukh-Malto and Telugu have c/cc; in the Parji subclass verb roots ending in r or y have in the past stem ñ substituted for these phonemes (ñ$<$*ñc). There are even a few etymologically related verbs which occur in these various languages in the corresponding subclasses: Te. vacc- 'to come', Kur.-Malt. past barc-, Br. past bass-, Pa. ver-, past veñ-; Te. cacc- 'to die', Kur.- Malt. past kec/cc-, Br. kah-/kas-, past kas-k-, Pa. cay-, past cañ-; Te. icc- 'to give', Kur.-Malt. past cic/cc-, Pa. cī-, past ciñ-; Te. nocc- 'to suffer', Pa. noy- 'to be painful', past noñ-. This being so, it is at least possible that the set Br.

ann-/ar- 'to be', past ass-: Pa. er- 'to become', past eñ-, is to be interpreted as evidence that Br. ass- and Pa. eñ- are really cognate and that Br. ass- is inherited.

The negative stem aff-, even with its irregularities, is parallel to the negative stems discussed in 3.28, and neither explains nor is explained.

The past negative stem all-, which is suppletive and unique in type in the Brahui system, is inherited (*DED* 198), with cognates in Ta. Ma. Ko. Ka. Koḍ. Go.

The PDr. verb *uḷ- 'to exist, be in a place' (*DED* 599; it occurs in Ta. Ma. Ko. To. Ka. Koḍ. Tu. Te., with traces in Kol. Nk. anḍ-) is clearly represented in the present of this verb, 1sg. uṭ, 2sg. us, 1pl. un, 2pl. ure. Descriptive analysis yields u-ṭ, u-s, u-n, u-re. The suffixes so isolated are found in other paradigms. 2sg. -s, 1p. -n, 2pl. -re are, in fact, those of all other paradigms, except the imperative. In the 1sg. a suffix -v occurs in the present indefinite positive (e.g., tixi-v 'I may place'), and -r in the present indefinite negative (e.g., tixpa-r 'I may not place'). Otherwise, C]-uṭ ~ V]-ṭ is found, e.g., in the past (xalk-uṭ, tixā-ṭ). It is hardly possible yet to make a definitive historical analysis of any of the Brahui inflectional suffixes. However, it has already been suggested (by Bray I.132) that the past tense is historically a periphrastic formation. L.V. Ramaswami Aiyar adopted this view in *ER*, August 1928, p. 8, and the forms occurring after a past stem ending in a consonant seem to make this probable. If so, 1sg. -ṭ requires further explanation only in the auxiliary verb 1sg. uṭ. No form in any of the other languages completely corresponds phonologically to this. Tamil's 1sg. is uḷēṉ, uḷḷēṉ, and similar forms occur in the other languages. The 3rd person has *uṇṭu, which is derivable from a stem allomorph *uṇ- plus -tu of the 3sg. neuter. This stem allomorph *uṇ- occurs also in Ta. uṇmai 'existence, etc.' (also Ma. uṇma) and Te. un(u)cu 'to place', uniki 'existence, etc.' No language shows *uṭṭ-, which prima facie is the reconstruction that Brahui uṭ requires. Something of the sort is to be reconstructed, and a series of allomorphs with retroflex phonemes (*uḷ-/uṇ-/uṭṭ-) is highly probable. But at this stage in our studies certainty is still impossible.

3.30 The n/r verbs show the r-allomorph in one other place in the verbal system which may be profitably discussed, viz., in the derivative causal with the suffix -if- which most causals have. The pairs of stems given by Bray (I.177) are: tōn- 'to hold', tōrif- 'to cause to be held'; pān-, pārif-; kann-, karif-; dann-, darif-; tin-, tirif-; bann-, barif-; mann-, marif-. For the remaining three verbs (1, 7, 10) no causals are given in either of Bray's volumes. In addition, however, bēn- 'to wear' has the expected causal bēnif-, but also bērif-. The meaning 'to thatch' is found for both bēnif- and bērif-. In 2.21 it was decided that the two meanings involved require attribution of the bēnif-/bērif- forms to two different etymologies, *DED* 4552 ('to thatch') and 4565 ('to wear; to make to wear').

No details can yet be worked out completely in the historical treatment of

these causals. However, the causal suffix is clearly related (as Bray stated) to the labial suffixes found in various of the languages; e.g., Tamil has varuvu 'to cause to come', Ma. varuvikka, Te. rāvincu, rappincu (these Telugu forms are not in *DED*); cf. also 2.14, *DED* 723. It may well be that for all the verbs of this class in which the r-allomorph is inherited (and the causal attested; 2, 5, 6, 8, 9), the causal also can be thought to be inherited. This certainly cannot be true of bērif- in either of its meanings, since no r is found in either of the two etymologies. But then no n is found either. To suggest that bērif- is analogical, would be too facile. The absence of n/r allomorphy in bēn- (Bellew and Trumpp do not suggest it; the former gives bēn-, the latter nothing), and the absence of alternative causals with r and n in the verbs of the class, leaves the origin of bērif- a puzzle.

3.31 Bray records two verbs with identical meaning 'to pay heed to, obey' which are both regular and differ only in that one has a stem ending in nn throughout and the other a stem ending in rr. These are mann- and marr-. There can be only an accidental resemblance to the class we are treating. Of the two, mann- is borrowed from Indo-Aryan (Turner, s.v. mānnu), marr- is related to the Dravidian etyma in *DED* 3865.

3.32 One would be inclined to wonder why other verbs whose stems ended in r were not drawn into this class as were 2 tōr-, 5 dar-, 6 tir-, 7 ha-tir-, 8 bar-, or why other verbs whose stems ended in n (or nn) were not drawn in as was 3 pān-.

There are, in fact, numerous verbs with r which have Dravidian etymologies: bārr-/bār- (*DED* 4355), birr- (*DED* 4564), curr- (*DED* 2353), durr- (*DED* 2866, if this is really a sound etymology; see 2.18, f. 19), ghurr -(*DED* 1538), harr- (*DED* 266), kūr- (*DED* 2211), kurr- (*DED* 2213; see "North Dravidian Velar Stops", etymology 4), xarr- (*DED* 929, 1140), narr- (*DED* 2980), pir- (*DED* 3613), pōrr- (*DED* 3706). Some of these verbs have no allomorph with single r, which would seem to be required for membership in this class, and it may be that this phonemic difference is operative in preventing inclusion in the class. But this objection should not hold for kūr-, pir-, and bārr-/bār-. In these three verbs the forms in the six columns are as follows: Column III, except for the optional form kūr, column V with

TABLE 4

I	II	III	IV	V	VI
bārr-	bār-	bār-a	bār-i-	bār-is-	bār-i-p/t-
pir-	pir-	pir-a	pir-i-	pir-is-	pir-i-p/t-
kūr-	kūr-	kūr-a kūr	kūr-i-	kūr-ā-	kūr-(i)-p/t-

suffix -is- in two of the verbs, and column VI, show forms so unlike those for this class (see table 1) that it is possible to conjecture that the forms

represented by these columns (or some combination of them) are the crucial moment for membership in the irregular class. But we are still so far from being able to explain in detail the peculiar forms of this class in these columns, that the question of the inclusion of certain r-forms and not of others seems at the moment unanswerable.

Similar examination of the vocabulary for verbs whose stems end in n, also yields a group with Dravidian etymologies: āvān- (*DED* 333), bēn- (*DED* 4565), bin- (*DED* 4472), hin- (*DED* 693; see "New Brahui Etymologies", section 3), kun- (*DED* 516), xan- (*DED* 1209). In spite of the a priori improbability of the infinitive (column I) alone providing a basis for membership in the class and for analogical creation of the r-allomorph and forms without either n or r, verb 3 pān- shows exactly this origin and development. No reason would appear for failure of other verbs ending in n to show the same development. In fact, there is also the puzzling suggestion in bērif-, the causal of bēn-, that there was such a development for this verb, without there being on record any other occurrences of the allomorph bēr- (see 3.30).

But, in addition, Bellew (who otherwise can add little to our studies) records (p. 490) that the 3sg. present (Bray's present indefinite) of bin- 'to hear' is bire and (p. 491) that the present of ben- 'to pluck' is bere. He gives the past of ben- as ber, though for bin- he gives bin. The verb bin- 'to hear' is given in *DED* 4472 (*vin-/ven-). The group of etyma does not contain the possible morphophonemic alternant *vir̲-/ver̲-, but the past stem forms Pa. vett-, Ga. veṭ-, Kui ves-, to which we must add Koṇḍa veR-, are reconstructable only as *ver̲r̲- (3.23), which implies *vir̲-/ver̲- also. Is this to be assumed as the origin of Bellew's bire? Or was he reporting a form from a dialect different from that in Bray's account—a dialect in which several other verbs with stems ending in n had gone the way of pān- 'to say'? The latter hypothesis would seem to be favored in Bellew's ben-/ber- 'to pluck'. This verb must be Bray's bining[2] 'to pick, pluck, pick up', which is borrowed from Hindi-Urdu bīnnā 'to pick, glean, pluck, pick out' (Turner, [*CDIAL* 11686]), and in which an r-allomorph can be only analogical. And yet, it is not entirely ruled out that the r-form of bin- 'to hear' could be inherited in the dialect which Bellew's forms represent and that the whole set of forms meaning 'to pluck' is based on the forms of bin- 'to hear'. No other source reports anything like Bellew's forms for these two verbs.

3.33 Trumpp (pp. 57, 112) reports a verb hining/hiring 'to see, sehen' with imperative hir, with a remark to the effect that hiring is based secondarily on hir. He gives this verb in addition to Bray's xan- 'to see', and he also records huning 'to look at, schauen', imperative hur. Trumpp's verb was treated by L.V. Ramaswami Aiyar ("A Few Dravidian Linguistic Perspectives", *Journal of the Madras University* [probably 4.27-55; p. 9 of reprint]) and by Jules Bloch (*BSOS* 5 [1930]. 742) as an etymon of the Kui, Kuru<u>kh</u>, and Malto forms in *DED* 765, *ēr- 'to see, look at, spy'. Phono-

logically this would be good, since *ē, shortened to *e by a following derivative suffix beginning with a vowel, could be represented by Br. i (2.15).

However, no other source even hints at this verb, and, considering the difficulty of presenting the Brahui vowels in the Arabic alphabet in which Trumpp's sources were written, and considering also the possibility of misprints, we should probably be well advised to consider that Trumpp's verb hining/hiring is a mistake in his sources for his huning, Bray's hunning/huring, and to ignore hining/hiring entirely.

3.34 Finally, it is to be noted that the verb cā- 'to understand', of which the forms were given in 3.11, and which certainly does not belong to the n/r verbs, has an alternative form (Bray calls it a local variant) for the infinitive (column I), viz., cān-ing beside cā-ing. This must be analogical to the forms of the n/r class. The only place where its forms overlap with those of this class is in the present indefinite (column IV). There it has cā- as verb 3 pān- 'to say' has pā-. The analogy is to be stated as pā-: pān-$>$cā-: *cān-.[24]

NOTES

[*This is chapter III of *Brahui and Dravidian Comparative Grammar* (abbreviated as *BDCG*), and paragraph numbers begin with 3. to indicate the chapter. When there is another chapter reference, it is to another chapter of *BDCG*. Bray's transcription kh has been replaced by x, as in *DEDR*.]

1. Bray's account of these verbs is contained passim throughout his account of the verb system; it is concentrated in Bray I.150-159, in the section on 'auxiliary and irregular v erbs'.—Note that throughout n before g is phonetically [ŋ].

2. For the historical origin of -s-, see *TPS* 1957.37.

3. For the diverse historical origins of these two allomorphs, see "New Brahui Etymologies", sect. 3, and "North Dravidian Velar Stops", ety. 7b. See also 3.11.

4. See *DED* 2815, and 3.11 and 13.

5. Bray's recording can be trusted in this matter. He commented on it, even though he did not note the contrasts, in I.30.

6. Bellew, p. 490, records the imperative 2pl. of this verb as tinbo or tibo. The latter form implies a 2sg. ti, and, considering the general structure of this class, also tir.—For the suppletive allomorph ēt-, no etymology has yet been given that can be considered seriously. Bray and Tuttle thought of tortuous connections with *ta-. L.V. Ramaswami Aiyar (*JORM* 4.62) suggested relationship with Ta. eṭu 'to raise, bear, carry' (*DED* 723, s.v. Ta. eṟu) and Te. ettu 'to lift up, raise, take away' (*DED* 681, s.v. Ko. et-); these hardly have the necessary meanings. Connection with *DED* 2138, *cī- 'to give' (Ta. ī), will not do, since *c- is lost in the south, but not in Brahui, and *ī should not yield Br. ē. Connection with *DED* 355, Ta. iku, Ka. ikku 'to give', seems phonologically impossible. In *DED* 740, Ta- ēku 'to go, walk', Te. ē̆gu 'to go', Kur. ēknā 'to walk', Malt. éke 'to go', there was included with a query Ma. ēkuka 'to give'. This may well be the etymon for Br. ēt-; [so now in *DEDR* 872 (=*DEDS* 101)].

7. Sample paradigms of the various subclasses are (in the order—sg. 1, 2, 3, pl. 1, 2, 3):

(1) S-iv, -is, -e, -in, -ire, -ir; (2) S-ḗv, -ḗs, ḗ-, -ḗn, -ḗre, -ḗr; dēv, dēs, dē, dēn, dēre, dēr; pāv, pās, pāe, pān, pāre, pār. Bray's analysis of dēv, pāv, etc. (I.124), as contracted from da-ḗ-v, pā́-iv, etc., has little to recommend it descriptively, and comparatively seems impossible. I can no longer build on his analysis as I did in *Language* 21.195.

Subclass 2 includes, besides the three verbs treated here, the following: hall- 'to take' (hal-ḗ-), xall- 'to strike' (xal-ḗ-).

8. The forms tipp-, titt- contrast with the negative stems of verb 6, tif-, tit-, as Bray was aware (cf. fn. 5). He listed the negative forms of tin- and cā- on opposite pages of the grammar (156, 157), e.g., titavaṭ, tittavaṭ.

9. The present negative paradigm of this verb is: affaṭ, affēs, aff (or affak), affan, affēre, affas. The present indefinite negative of tin- 'to give' is: tifar, tifēs, tif, tifan, tifēre, tifas. ann- 'to be' has no other tense based on the stem aff-, though all other verbs have three other tenses based on the corresponding form; affak, in fact, corresponds to the 3sg. present-future negative of other verbs (e.g., tifak). Another peculiarity of the aff- paradigm is that when it is used as an auxiliary and is enclitic, it appears as -af-, or 'more often' as -av-, the 3sg. being -au (or -av[C, e.g., pātav-ta 'he didn't say to him').

10. *Prima facie*, the stem hatar- looks as if it might be an assimilatory product derived from hatir-. Unfortunately, the vowel assimilations that are known in Brahui (Bray I.31) are all regressive, and a progressive one should therefore not be posited when there is a good explanation at hand otherwise.

11. This Brahui etymology seems to have been first presented in *DED*. Although the Brahui range of meaning is 'to look, look at, look for, wait for, consider, think', which is close to the range in *DED* 625 (Ta. uṉṉu, etc.), i.e., 'to think, consider, observe, look at', L.V. Ramaswami Aiyar (*Journal of the Department of Letters, University of Calcutta* 19 [1929]. 8.1-7, and in later publications) concentrated on the meaning 'to see' and thought especially of connection with the verbs now listed in *DED* 2257 (Ta. cūṟ, etc.); this involves the assumption that PDr. *c-: Br. h-. He was followed in this etymology by others, notably P. Meile (*Journal asiatique* 234 [1943-1945]. 88), who was interested in furthering his special theory of Dravidian sibilants, and E.H. Tuttle (*JAOS* 56 [1936]. 355, and elsewhere). Bray, on the other hand, though he included in his etymological note Go. hur- (misprint for huṟ-), which belongs in *DED* 2257, gave also Ta. Ma. Ka. ōr- 'to think' (*DED* 893), which because of ō cannot be related to the Brahui form (see 2.26), and Kur. ēr- to look, etc. (*DED* 765), which is just as impossible. For Br. h- and other details of the etymology, see "New Brahui Etymologies", section 2.

12. This etymology was first presented in *DED*. Bray suggested Ta. tāṅku (*DED* 2573), which is somewhat difficult semantically and also offers phonological dfficulties in everything but the initial, and Ka. tāḷ (*DED* 2605), which is good semantically but difficult phonologically with regard both to the vowel and to ḷ (PDr. *ḷ: Br. l [*DED* 2926] and lh [*DED* 2856]). For another possible example of PDr. *-ṭ-: Br. rr, see discussion of *DED* 2866 in 2.24.

13. For the relationship of such allomorphs, see Bh. Krishnamurti, "The History of Vowel-Length in Telugu Verbal Bases", *JAOS* 75 (1955). 237-252. Bray missed this etymology, as did L.V. Ramaswami Aiyar; both thought of the verbs now given in *DED* 3629, Ta. pēcu, etc.

14. Burrow, *BSOAS* 11 (1943). 132-139, in his treatment of the NDr. correspondences for PDr. *k-, ignored this verb. In my paper "North Dravidian Velar Stops", fn. 12, I postponed it for treatment here. Bray recognized the Dr. etyma for kē- and the IA origin of kar-. He curiously regarded nn of kann- as 'not radical and [having] no direct connection with Bal. kan-'; yet kann- must be explained. L.V. Ramaswami Aiyar, *JORM* 4 (1930). 64, thought the r of kar- to be owing to contamination with the other verbs of the class.

15. L.V. Ramaswami Aiyar, *JORM* 4 (1930). 62, thought that this verb ('to take away, cut') and tining 'to give' were differentiations of one and the same verb. Certainly there is no warrant for this semantic development among the etyma in *DED* 2526. Nor is the phonology convincing, especially that which relates to Br. d- as a representative of PDr. *t-; see 2.18. Bray's suggestion of relationship with Go. (y)ētānā was discussed in "New Brahui Etymologies", section 1.

16. Treatments by earlier scholars have been referred to in my earlier papers. They all stop short of explaining i in the Brahui forms phonologically. *DED* 2526 gave hatar-, hata, but not the simplex verb. In *TPS* 1957.38-40, I have referred to Krishnamurti's discussion of Te. teccu in *TVB*.

17. The etymology for this verb has been long since identified, e.g., by L.V. Ramaswami Aiyar, *JORM* 4 (1930). 57-64.

18. The etymology was pointed out by L.V. Ramaswami Aiyar, *Indian Historical Quarterly* 5 (1929). 339-341.

19. Dr. Bh. Krishnamurti has called by attention to this point. The Konḍa material published by Sudhibhushan Bhattacharya (*Bulletin of the Department of Anthropology*, [Government of India], 2 [1953-1956]. 17-48) was defective in the phonetic point involved. *DED* was better, after the 1957-1958 field trip by Burrow and Bhattacharya. However, it is now clear that *DED's* ṛh is still defective. Krishnamurti diagnosed the phoneme as a voiceless alveolar trill, as I agree after hearing his tape recordings of the language. The correspondence, as given in *DED*, pp. xii-xiii, is correct. An example, free from any morphological complication, is that in *DED* 3556 'white anthill': Ta. Ma. puṟṟu, Ka. puttu, putta, Te. Kol. Nk. puṭṭa, Pa. putta, putkal, Ga. (Oll.) puṭkal, Go. puttī, Konḍa puRi, Kui pusi, Kur. puttā, Malt. pute. Unfortunately, Brahui does not have the word.

20. This is almost to follow L.V. Ramaswami Aiyar (*JORM* 4 [1930]. 57-64) and Bray, who connect Br. ar- with *iru. Bray's inclusion of Kur. ra'anā is of course mistaken; this is borrowed from Hindi rahnā (Turner, [*CDIAL* 10666]). The present stem u- of the Brahui verb is related to *uḷ- in *DED* 599.

21. Bray I. 124 suggested that the length of -ḗ- is a function of the shift of the accent to it. This should mean that the original quality is i. However, if ē and i are to be interpreted historically as quantitative variants of the same vowel quality, the reconstruction would seem to be *ē and *e, the latter appearing here as i, another instance of the correspondence in 2.15. However, it is not possible to rule out the two developments of *ey: Br. i and ē (2.19), which might be related to the verbal derivative suffix *-ay- (e.g., Ta. niṟai, Te. neṟayu, *DED* 3049). No clear solution can yet be seen.

22. ha-tir-ing was also presumably the old form beside the new ha-tin-ing, and this pair may have backed up the double tōr-ing/tōn-ing in its influence on verb 1. However, the matter is not quite simple, since there is no tir-ing beside the analogical tin-ing of verb 6.

23. Such a suggestion is not inconsistent with finding the source of the Brahui pronominal suffixes in Sindhi rather than in one of the Iranian languages; this is demonstrated in *India and Historical Grammar*, and is discussed further in 4.18.

24. Bray I.118 explained the n-forms of the class in general as formed from the base in r by 'the attraction of the nasal in the infinitive termination'. I hope my explanation will carry more conviction.

CHAPTER VI

THE SOUTH DRAVIDIAN LANGUAGES*

1. The subgrouping of South Dravidian.
2. Description of the past or S^2 verb stem in SDr.
3. Comparative treatment of SDr. past tense formations.
4. The Tamil and Koḍagu verb class with past suffix -nd- and future suffix -p-.
5. The position of Badaga.

Appendix. Verb lists of Toda, Kota, and Koḍagu.

1. *The subgrouping of South Dravidian*

1.1. The unity of a South Dravidian (SDr.) group of languages as opposed to the remainder of the Dravidian family has for a long time been regarded as demonstrated. It includes Tamil-Malayalam and Kannaḍa. Telugu has had to be regarded as in some manner ambivalent, showing some features in common with SDr. as a whole or in part, and others in common with Central Dravidian (CDr.). Krishnamurti in chapter IV of *TVB* (p. 269) was able to demonstrate conclusively that: "The weight of comparative evidence discussed . . . is in favor of considering Telugu as an off-shoot of the Central Dravidian branch of proto-Dravidian . . . [that] has been in intimate geographical contact with the members of South Dravidian from a very remote past. The morphological evidence puts it rather conclusively with Central Dravidian." The central mass of evidence adduced in this paper (sections 2 and 3), that on the past tense formation of the verb, only adds another item, although an important one, looking towards this same conclusion, since it is very clear (and not needing to be demonstrated here) that the Telugu past tense stem structure is unlike that of SDr. as here defined.

The position of Tuḷu *vis-à-vis* SDr. and CDr. still needs to be studied in detail. This study can only be made after sufficiently good evidence on the language and its dialects has been made available. Meanwhile, we may accept the generally held opinion that Tuḷu is not a member of the SDr. group; *prima facie*, the formation of the past tense bears this out.

1.2. To the three members of SDr. already listed, it is clear that three other languages must be added: Toda and Kota in the Nilgiri mountains, and Koḍagu; the past tense evidence alone is enough for that. Our problem is to place them accurately within the group, i.e. to present evidence for subgrouping. At various times and by various scholars differing views have been expressed. There is no real need to identify the various scholars and their views, especially since much that was proposed was based on superficial

*JAOS, 87. 365-413 (1967).

inspection, and at times the views expressed were labelled as tentative. But a summary of the possible directions is in order.

1.3. Toda was early grouped with Kannaḍa. I should say with all modesty that, after an uninformed, but tentative, acceptance of this view, I was able to proceed in 1958 to abandon it and to demonstrate that Toda is in fact a descendant of an off-shoot from pre-Tamil, which is, of course, the ancestor of both Tamil and its off-shoot Malayalam. Little has been said about Kota, and it does at first sight present a few Kannaḍa-like features of detail. However, in my 1958 paper on Toda I made some statements about Kota parallel to those about Toda, even though I reserved judgment on the relationship between the two languages. Other scholars have drawn the obvious inference that the two languages form a Nilgiris subgroup related to pre-Tamil in the manner which I stated for Toda alone. In the present paper the added evidence from the study of the past tense does not contradict this inference, though it goes no further in substantiating it than to demonstrate that Kota, like Toda, belongs with Tamil-Malayalam rather than with Kannaḍa. However, another scholar has adduced some points of evidence that clearly place Kota with Tamil, and these are introduced in 1.6 below.

1.4. The third language, Koḍagu, has both early and late been grouped with Kannaḍa, though the late L.V. Ramaswami Aiyar in 1928 attempted to demonstrate a relationship with Tamil-Malayalam, and more especially with Malayalam. The central point of this paper, the past tense, as well as other points to be adduced, agree with the first part of his thesis, which I put in the form that in most respects Koḍagu belongs more closely with the rest of SDr. than with Kannaḍa, with the proviso that in a few points there are isoglosses that join Koḍagu with Kannaḍa. On a close connection with Malayalam I am not convinced.

1.5. As regards the Nilgiris languages, the conclusion to be derived from the study of the verbal stem S^2, which in the other languages is the past stem, is only that these two languages are not Kannaḍa-like. They have essentially the same subclasses and S^2 suffixes that are seen in the SDr. languages other than Kannaḍa, viz. *-i-, *-t-, *-nd-.[1] They show none of Kannaḍa's characteristic spread of -d- (which is derived in the main from *-nd-) throughout large parts of the system. Moreover, they share in the innovation of all the SDr. languages except Kannaḍa, whereby in a large class of verbs the intransitive/transitive contrast is carried by the contrasting past suffixes *-nd- and *-t- respectively.[2]

The two Nilgiris languages have diverged from one another in the S^2 system because of idiosyncratic developments; e.g. different results upon palatization by y preceding the dental suffixes; moreover, in Kota ṯ, ṭ, ṛ+y >c; in Toda c+y<č, ẓ+y>j, whereas in Kota c/j+y>c/j. But they have started from a Tamil-like system, which is that of SDr. minus Kannaḍa.

It was pointed out in the 1958 paper (pp. 43ff.) that in the morphology based upon the S^2 stem Toda and Kota departed from the other SDr. langu-

ages in general (and from the rest of Dravidian), in that in the other SDr. languages S^2 is the basis for the past tense, while in Toda and Kota it is the basis for the past tense and for the present tense as well. This must be interpreted as an innovation shared in common by these two languages, and, since such deep-seated borrowing is implausible unless other evidence necessitates the assumption, this trait is evidence for classing Toda and Kota as a Nilgiris subgroup.

The demonstration in the 1958 paper went further, and gave evidence that Toda shared with the oldest Tamil a past suffix *-c-, which is represented in Toda by a sibilant morphophoneme, in Tamil by c. This is seen: (1) in Tamil in 1sg. and 2sg. past tense forms with -c-iṉ added essentially to the S^2 form, (2) in Toda in the past tense, which has the sibilant morphophoneme added to S^2, and (3) in Kota, by what is presumably its own divergence of use, in the past irrealis paradigm which has -c- added to S^2. In all three languages, and in no other, is this suffix added to S^2. This is consequently a shared innovation. Since it was argued that the only possible historical hypothesis for this set of phenomena must be that Toda separated from Tamil at a time when there was still a fully living past suffix *-c-, i.e. in the pre-Tamil period, it follows that Kota also separated then. This conclusion should have been drawn at that time.[3]

1.6. However, P.S. Subrahmanyam in his comparative work on the Dravidian verb system (1963) has utilized my Kota grammatical sketch (1944) and pointed out several items in which Kota and Tamil have in common forms found nowhere else. He has pointed out (§§3.3, 3.98) that Sangam Tamil has for verbs with past suffix -t- and future suffix -p-, another future suffix in free variation with -p-, viz. -kuv-; e.g. koḍukuvēṉ=koḍupēṉ 'I will give'. Kota (p. 28, §57) has for most verbs a future with S^1-k/g-v-; the form corresponding to Tamil koḍukuvēṉ is koṛkve·. Again, Tamil (§7.59) and Kota (p. 28, § 58) agree and contrast with all other languages in their prohibitives: 2sg. Ta. S^1-ād-i, Ko. S^1-a·d-i·; e.g. Ko. geya·di· 'do not do!'

1.7. Enough evidence is at hand and has been presented already to justify setting up a Nilgiris group consisting of Toda and Kota, which is to be related to Tamil as having separated off in the pre-Tamil period. Further pieces of relevant evidence accumulate slowly. Krishnamurti, in 'Dravidian personal pronouns' (1967, p. 198), has made it clear that Toda and Kota share a common innovation in the oblique forms of the 1pl. pronoun exclusive and inclusive (Kota em- and am-; Toda em- and om-, the latter <*am-). This says nothing about a relationship with Tamil, but does add to the evidence for a subgrouping of Toda and Kota.

Since the Nilgiris subgroup does not share the Tamil (i.e. Tamil-Malayalam) palatalization of *k- before front vowels, we must posit that the splitting off of the Nilgiris subgroup took place before the Tamil palatalization, or, to be more exact, before the Tamil palatalization spread all over the Tamil area. This is, of course, only a relative chronology. An attempt to make

an absolute estimate does not get far. Burrow (1943, p. 126) noted that, on the basis of the equation IA Kerala-putra- (evidence in Aśokan inscriptions)=Ta. Cera-māṉ, the palatalization took place between the period of Aśoka and that of the earliest Tamil records (in which the palatalization is complete); but there is no way of knowing whether the origin place of pre-Toda and pre-Kota shared the palatalization as early as the origin place of literary Tamil. Moreover, this equation has been thrown into doubt by paleographic re-examination of the inscriptions in question by Dr. Klaus L. Janert (Cologne) at the International Conference-Seminar on Tamil Studies, at Kuala Lumpur in April 1966. It seems evident that the reading Kerala-putra-, as regards the first syllables, is in fact highly speculative. It now becomes prudent not to attempt to base any absolute chronology on this equation, and we are left about where we were before, in saying that the separation of pre-Toda-Kota took place before the Tamil palatalization reached their place of origin, i.e. probably at the period round about the beginning of the Tamil recorded texts (or in fact prior to that by an unknown span of time).

1.8. Kota shows some items of agreement with Kannaḍa. They are essentially rather trivial matters of phonological form of lexical items, even though several striking ones have been identified. The verb o·g-, o·y- 'to go' is Kannaḍa-like in its absence of initial *p- (though in nothing else). I have discussed this word in my 1965 publication (pp. 20-1) and have argued, in some detail, that this absence of *p- is due to the influence of the neighboring Badaga, which is a dialect of Kannaḍa. Though almost everything remains to be done in recording Badaga in its various dialects and in relating it to its parent Kannaḍa on one side, and to the Nilgiris languages on the other, we can, it seems, be sure that for the surface matters in which Kota (and Toda too) may look Kannaḍa-like, the contacts responsible were not with plains Kannaḍa but with the Badaga spoken in the Nilgiris in the past few centuries. Some discussion of the Badaga language is undertaken in section 5.

1.9. The position of Koḍagu in SDr. has been obscured by certain striking features.[4] Kannaḍa, Koḍagu, and Tuḷu share the innovation of the development PDr. *v-$>$b-; this much-discussed matter is an areal feature, which is placed in perspective later in the paper (1.12). Kannaḍa and Koḍagu share a lack of the palatalization of initial *k-, which is so striking a feature of Tamil-Malayalam. In this they are joined by Toda-Kota; i.e. all SDr. lacks the palatalization except the innovating Tamil-Malayalam, and we have referred to the relative chronology of this matter in 1.7. Koḍagu shares with Kannaḍa a striking feature involving two verbs, Koḍ. bu·ḷ-, budd- 'to fall' and ë·ḷ-, ëdd- 'to rise', Ka. bīr̤, bir̤d-/bidd- and ēr̤, er̤d-/edd-, i.e. the allomorphy based on quantitative vowel alternation and the simplification of r̤ plus the past suffix to dd. The matter is discussed in detail in 3.13; its areal bearings are taken account of in 1.12.

Koḍagu and Tuḷu share a development of front vowels *i, *i·, *e, *e· to the corresponding back vowels *u, *u·, *o, *o·, when a labial (p, m, b$<$*v)

precedes and a retroflex (*ḍ, *ṭ, *ṇ, *r̤, *l̤) or the alveolar *r̲ follows (e.g. the verb 'to fall' just adduced: Koḍ. bu·l̤-, Tu. būruni, Ta. vīr̤, Ka. bīr̤, *DED* 4457); this areal matter must be discussed in detail elsewhere.

All these striking phenomena need explanation, to be sure, but they are not bolstered by an impressive number of other isoglosses of a deep-seated character which would connect Koḍagu closely with Kannaḍa and/or Tuḷu.

Otherwise there are numerous isoglosses that separate Koḍagu from Kannaḍa and put it with the rest of SDr. Some have been identified in sections 2 and 3 on the past tense. Koḍagu does not share with Kannaḍa the innovation of the spread of the past tense suffix *-nd- at the expense of *-t-. Koḍagu, like Old Tamil, but unlike the other SDr. languages, retains as a separate subclass a small group of verbs of shape CV̆y which have past suffix *-d-; e.g. Ta. cey, ceyd- 'to do', Koḍ. gey-, gejj- id. (2.34 and 3.7). Koḍagu shares with all SDr. except Kannaḍa the innovation of the introduction of the intransitive/transitive distinction into the past suffix pair *-nd-, *-t-.

Other features of the verb structure are relevant to the problem of Koḍagu. It agrees with Tamil-Malayalam alone of the SDr. languages in having a subclass of verbs (Tamil class VII) with the past suffix -nd- and the future suffix -p- (e.g. naḍa-, naḍand-, naḍap- 'to walk'); the remainder of the verbs with past suffix -nd- have future suffix -v- (Tamil class II). Toda-Kota and Kannaḍa show nothing parallel to class VII. While the Tamil-Malayalam-Koḍagu feature is probably a shared retention (see discussion in section 4), Koḍagu is clearly divided from Kannaḍa.

In general, in the system of voice, intransitive/transitive and causative, Koḍagu agrees better with the rest of SDr. than with Kannaḍa. The intransitive/transitive system has been touched upon in part in the paper and will not be further developed here. It need only be noted that even casual examination of the material in *DED* shows that sets with, e.g., -ŋ̤g- and -k- abound in Koḍagu. It is well-known, of course, that the Kannaḍa system is fragmentary and that the -isu-/-cu suffix substitutes for it. Koḍagu has a causative suffix (unfortunately not exemplified in *DED*) which appears added to both intransitives and transitives. In this it is structurally like the other SDr. languages (with the exception of Kannaḍa). Its causative suffix is -c-, with several allomorphic variations of the preceding vowel, reminiscent of the Kota transitive -c- and of the Kannaḍa -isu/-cu transitive-causative suffix, but not of the actual forms for the causative found in Tamil-Malayalam, or in Toda (-eṭ-; see my 1958 paper, pp. 65 f.), or in Kota (-kc-/-gc-; derived from gey-, gec- 'to make, do').

In the noun system the nouns that in SDr. have in general the suffix *-am, oblique *-at-, are represented in Koḍagu by nouns ending in -a (e.g. mara 'tree'), with an oblique stem in -at-. Kannaḍa, for whatever historical reason, is unlike the rest of SDr., and therefore unlike Koḍagu, in having for these nouns an oblique stem with -ad-.

Several phonological matters may be noted. Kannaḍa is alone in its deve-

lopment of *p- to h-; Koḍagu does not go with it in this matter. Koḍagu does not share with Kannaḍa (and Toda-Kota) the reduction of clusters of homorganic nasal and stop by loss of the nasal. Vowels are in great part difficult to deal with. However, one matter seems to be certain as dividing Koḍagu from Kannaḍa, as follows: in general, in an initial syllable SDr. *e and *o (of whatever origin) are heightened to i and u in Kannaḍa before a high vowel in the next syllable; not so in Koḍagu; e.g. Koḍ. eli 'rat', Ka. ili; Koḍ. kĕḍ-ï- 'to be ruined', Ta. keḍu, Ka. kiḍu; Koḍ. oli 'noise of a metal bell', Ta. oli 'sound, cry', Ka. uli id.; Koḍ. toḍu- 'to touch', Ta. toḍu, Ka. tuḍu; many other examples are available in *DED*.

1.10. Once we have placed Koḍagu with the SDr. languages other than Kannaḍa, it is necessary, if we wish to construct a stemma model of the relationships within SDr., to determine which of the two, Koḍagu or the Nilgiris subgroup, is nearer (in time and/or relationship) to Tamil-Malayalam.

Koḍagu shares with OTa. the small verb class of shape CV̆y with past suffix *-d- (mentioned in 1.9, noted in 2.34, analysed further in 3.7). Since Kannaḍa also has remnants of the class (see 3.7), it must be regarded as a SDr. feature, and in Koḍagu it is to be interpreted as a feature retained in common with OTa. Koḍagu and Tamil-Malayalam have in common a verb class with -nd- as past suffix and -p- as future suffix (mentioned in 1.9). Examination of this class in section 4 makes it possible to view this also as a common retention rather than a shared innovation. No shared innovation has yet emerged to connect closely Koḍagu and Tamil-Malayalam.

On the other hand, the Nilgiris languages have an innovation shared with OTa., viz. the past sibilant suffix added to S^2 (see 1.5, last paragraph).

In the stemma (fig. 1), then, the subgroup of the Nilgiris languages is most closely connected with Tamil at the pre-Tamil stage, then Koḍagu is connected with Tamil-Nilgiris, and finally all these with Kannaḍa.

1.11. In dealing with Koḍagu we have found that, even though most of the isoglosses that have been identified separate it from Kannaḍa and connect it with the rest of SDr., there are a very few that connect it rather with Kannaḍa. The situation demands a type of solution that will do justice to both sides of the evidence. The tendency of comparativists is usually to adopt the kind of analysis that the Indo-Europeanists most favored, i.e. to stress the differentiating isoglosses and to place little emphasis on the others. I have earlier (in the 1965 publication) discussed the matter at some length, and have, I hope, found the direction in which to look for a solution The model adopted by Indo-Europeanists, especially of the neo-grammarian persuasion, is that of a tree or stemma. It works well up to a point in probably all language families, and best when the language units corresponding to the branches of a tree or the biological individuals of a family are isolated like those branches or those individuals. The biological isolation or individuation prevents any other kind of material relationship than that which produced the branches or the individuals in the first place. But the relationships of a

language include not only the relationship of genetic history, but also that resulting from the social nature of language. Language exists at any one time only as a type of interrelation between speakers. It follows that, if related languages are not completely isolated from one another, there will be interrelations between the speakers of the different languages and, consequently, interactions between the languages themselves as structures. It matters little for our present purpose what model we use to describe such interactions, whether the wave model of Schmidt, the net model of some recent investigators, or the model of borrower and lender that has been a metaphorical commonplace for a long time. The complete model that is needed is a three-dimensional one, two dimensions in space to contain all the related, but not completely isolated languages, and a dimension in time to contain the histories of the languages. We are dealing with a model analogous to those in solid geometry, which implies that we can construct planes across the model to denote time levels and that any plane that is constructed can have lines drawn on it to represent a 'borrowing', a 'wave', an interaction. The model will accomodate not only interactions resulting from the interrelations between contemporary speakers, but, if necessary, also interactions resulting from the existence in written form of earlier stages of the language or languages. It is a complicated model, but the language relations of which it is an analogue are complicated.

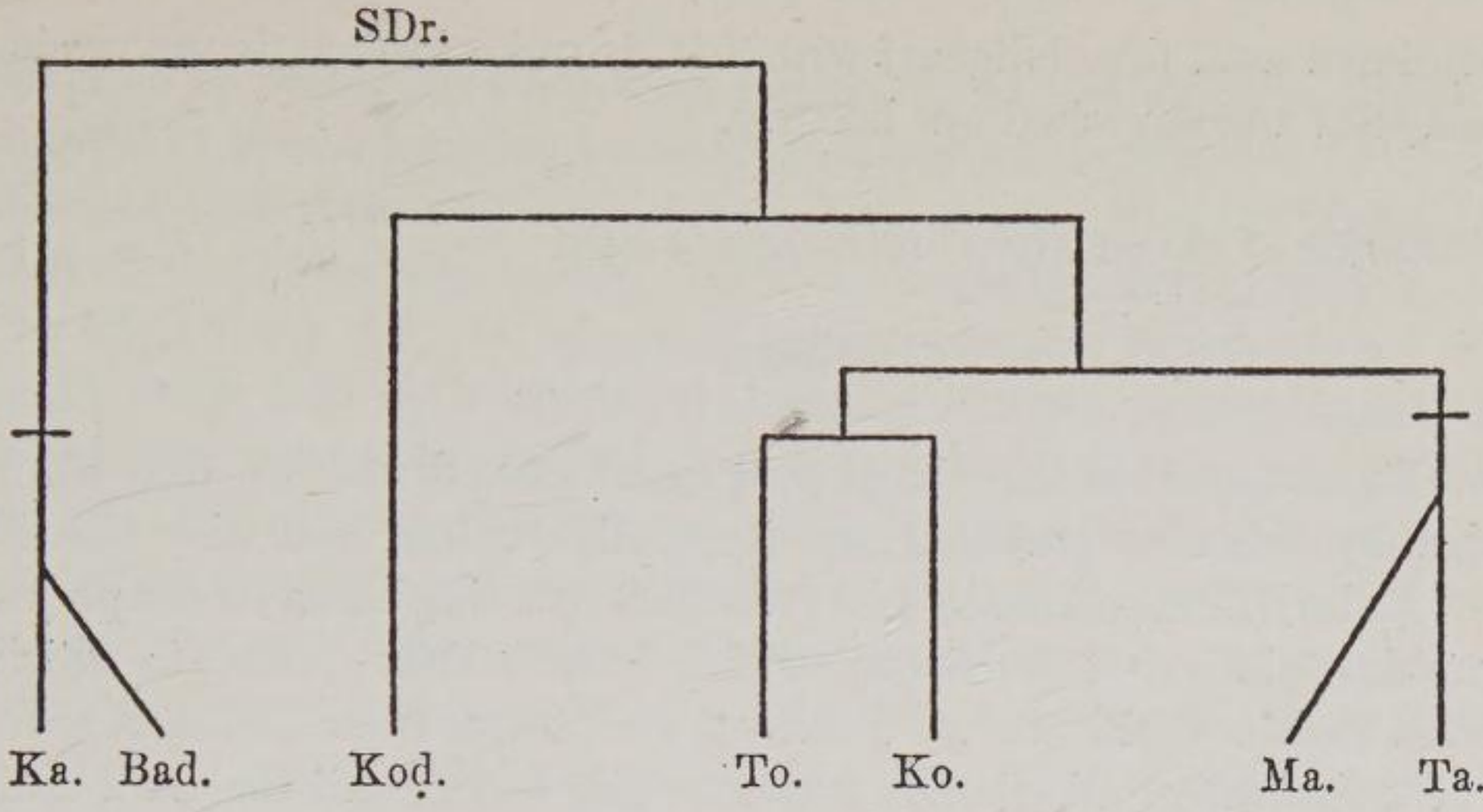
1.12. In the relationship which Koḍaga bears to Kannaḍa, then, we have abundantly recognized those lines that are drawn in the time dimension, which in the stemma type of diagram would connect the two languages only through the oldest time plane that we represent in the model, i.e. through PSDr. But the two languages in the space dimension are contiguous, even though the mountainous terrain occupied by the speakers of Koḍagu has made communication with Kannaḍa (in the past) not very easy. Moreover, Tuḷu is also contiguous with both the languages. The drawing of lines in the space dimensions of the three-dimensional model will take care satisfactorily of the Kannaḍa-Koḍagu-Tuḷu common innovation of the change PDr. *v>b-. We may not know the chronology, i.e. the place or places across the time dimension at which the cross lines should be drawn, but the model is none the worse as a model for that. According to older models, we have here a 'wave', a 'borrowing', produced in contiguous cells of a net. Similarly for any other feature which we have identified in which Koḍagu and Kannaḍa are separated from the other languages by an isogloss (which is in fact one type of drawing that can be used in our model). Or we may find other isoglosses connecting Koḍagu with the contiguous Tuḷu, which is not closely related to it genetically; or isoglosses connecting Koḍagu with the contiguous Malayalam and/or Tuḷu, as e.g. the occurrence of initial ñ (and medial too) in all three languages (for examples consult the indexes in *DED*). Since PSDr., or even PDr., *ñ- is involved in a few of the etymologies, there may be genetic connection in this point, but the contiguity suggests interaction to produce a

common retention, or since there is contiguity, there may possibly be borrowing of words.

1.13. When we turn to the Nilgiris subgroup, Toda and Kota, it seems clear from the great diversity in many points and, at the same time, from the very deep-lying similarities, e.g. in the overall structure of the verb system as regards the S^2 stem, that we have genetic relationship between these two languages. Their peculiarly intimate contiguity would lead one to suspect also that the other type of relationship has operated, perhaps even profoundly, and many details of retention of vocabulary, of special developments of meaning in inherited words, of words found only in the two languages, need this type of explanation. It is even necessary to invoke it for more structural features, such as the common retention of alveolar stop phonemes, the common loss of vowels in non-initial syllables, the development or retention of paradigms with the sibilant past suffix (Toda past, Kota past irrealis). Much more work is needed to identify structural items of this sort.

1.14. The Nilgiris languages have been almost completely isolated geographically from all other SDr. languages, and so there has probably been little interaction with them, except for the Badaga dialect of Kannaḍa. Much interaction in this last situation will undoubtedly be recognizable as soon as we have detailed information on Badaga. Toda and Kota words in which PDr. *p- is missing are borrowings from or contaminations with Badaga words with initial h- (<*p-). Badaga has borrowed from these two languages; e.g. the meaning of its representative of the verb *tar- 'to give to 1st or 2nd person' is that of the Toda and Kota verbs but not that of the Kannaḍa one, which means 'to bring'. But for this area most of the undoubtedly interesting facts remain to be identified in the future. One of them will be concerned with the isogloss that joins the Nilgiris languages and Kannaḍa in the matter of the simplification of clusters of homorganic nasal and stop by loss of the nasal. Is it an isogloss concerned with borrowing, and if so, is Badaga the active agent on the Kannaḍa side? Or is it independent development? I do not yet have an answer.

1.15. We are ready, then, to present our revision of the SDr. relationship model. Since three-dimensional models cannot be drawn on two-dimensional paper without distortion, I shall content myself with first stemma diagrams (fig. 1), and then an attempt at accomodating a three-dimensional model to a flat piece of paper (fig. 2). This last contains solid lines to represent the time dimension and broken lines to represent interactions between the languages. Squashing flat the time dimension onto the paper produces distortion both of time dimensions and (somewhat less) of geography, but the result is probably still intelligible. It will be noted that Tuḷu and Telugu have been introduced as languages of interaction, but no attempt has been made to indicate their genetic (solid line) relationship to SDr. In the stemma diagrams the essential character of the geographical distribution as a large circle with a



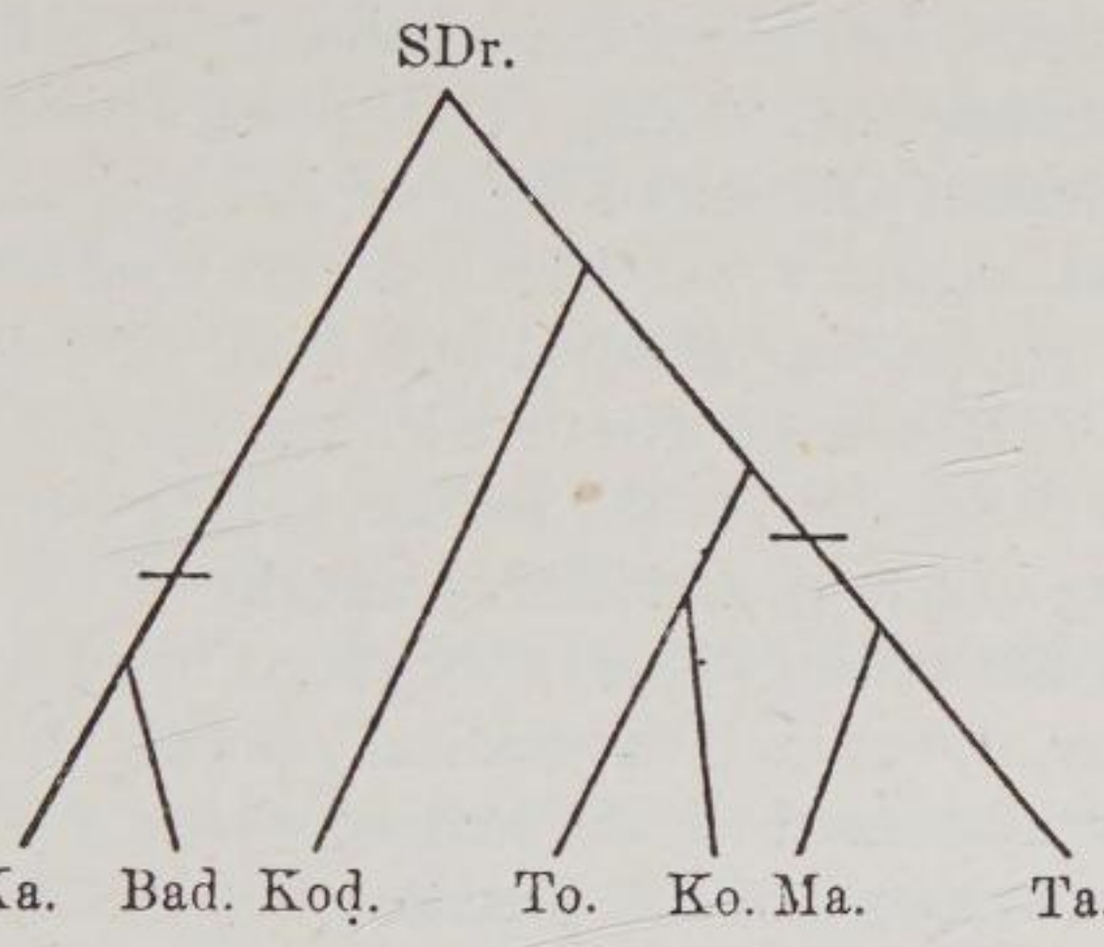


Fig. 1. Stemmata for South Dravidian
(For Ka. and Ta. — indicates approximate beginning of the literary record.)

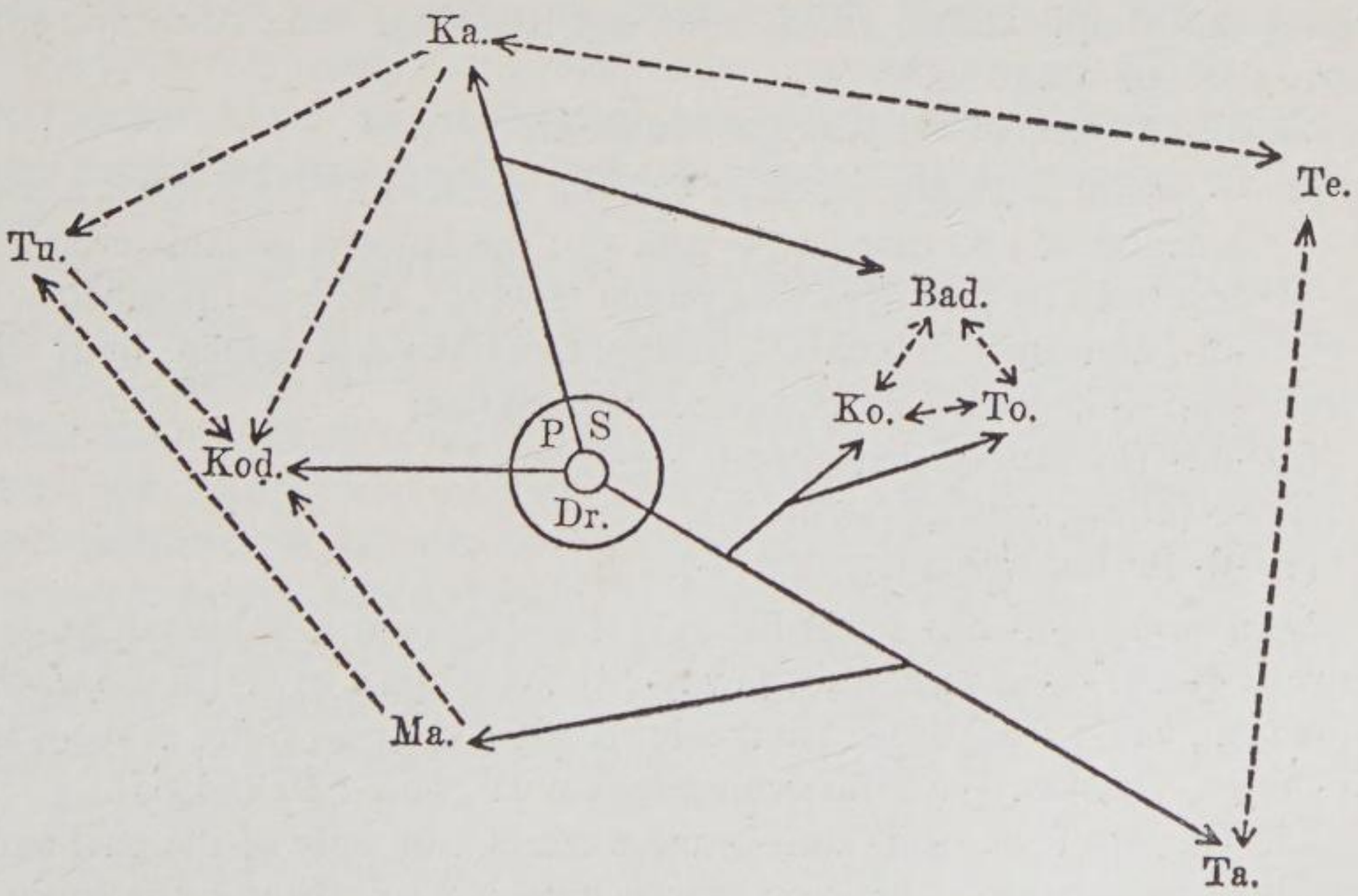


Fig. 2. A three-dimensional model of South Dravidian

small isolated area (the Nilgiris) within it, is quite lost, as if the circle had been snapped and stretched out linearly.

2. *Description of the past or S^2 verb stem in SDr.*

TAMIL

2.1. The analysis of the Tamil past tense stem formation that has been achieved by Western grammarians (typically Arden, and also the *Tamil Lexicon*, p. lxvii) and refined by Lisker, suffers by being based on the phonemic (or graphic) solution of the Tamil writing system. That system, in which the stops and their complementary fricatives are grouped into phonemes on the basis of quantitative allophony, does not fail to take all the data and the contrasts into consideration. However, an alternative solution based on the contrasts of voicelessness and voicing of the phones yields simpler morpho-phonemics in the present solution of the morphology,[5] and is utilized here.

Voiceless phones, whatever their length, are grouped into a set of voiceless phonemes; voiced phones are grouped into a set of voiced phonemes. To take one position of articulation as a detailed example, in the dental position this yields two phonemes, t and d. The former, t, occurs initially in an isolated word (in the writing system t), and intervocalically (in the writing system tt), and following y (in the writing system tt preceded by y), and in several other positions. The latter, d, occurs intervocalically (in the writing system t), and following a homorganic nasal (in the writing system t preceded by n), and following y (in the writing system t preceded by y). Similarly for the other positions of articulation, except that in the alveolar position the two phonemes are ṟ and ṭ; the other positions have g and k, j and c, ḍ and ṭ, and b and p (with some complications, which need not be solved here, concerning the distribution of b and v).[6]

2.2. The morphs of the past tense suffix are:

(1) -i-, which is usually stated as -iṉ-, but historically the latter is a combination of two morphs, -i- and -ṉ-; the latter is isolable even descriptively in such forms as pōṉēṉ 'I went', alongside pōyiṉēṉ with -iṉ-, and āṉēṉ 'I became', alongside āyiṉēṉ and āgiṉēṉ, both with -iṉ-; -i- is needed for comparative purposes;
(2) -nd- (in the writing system -nt-);
(3) -t- (in the writing system -tt-);
(4) -d- (in the writing system -t-).

Even though -d- has small functional yield, there is minimal contrast between -t- and -d- in such verbs as vay- 'to abuse', past vayd- (in the writing system vai, vait-; *DED* 4566 mistakenly recorded the past suffix as -nt-), and vay- 'to put', past vayt- (in the writing system vai, vaitt-; *DED* 4565).

2.3. The two forms -nd- and -t- are markers, not only of the past tense, but also of the contrast between intransitive and transitive respectively in

some pairs of verbs. This produces a problem in the analysis, which Lisker attempted to solve by setting up a morphophonemic symbol X which appears in the transitive verbs and some others. This allowed him to identify the past morph -t- (in the writing system -tt-) as X+d (in the writing system -t-), and so, by identifying this and all other complementary distributions, to distribute all verbs into three classes (instead of Arden's seven). Ingenious and perhaps even convincing as this is, it is not useful for our present purpose, since a larger number of subclasses must be identified comparatively.

2.4. Descriptively, the classes in the past stem formation are fewer than those for the verb inflexion as a whole, since the cross-cutting present and future formations are ignored here. E.g. the traditional classes II and VII (Arden and Lisker) both have -nd- in the past, but g/v and k/p respectively in the other two formations; they can be united in our treatment.

2.5. Lisker unites classes I and V. We can unite parts of class I and class V, with past suffix -d-. Class I consists of some monosyllabic verbs ending in y and some disyllabic roots of the shape (C) V̆CV̆, in which the second syllable has the phonemes u̲ or ru; e.g. cey-, ceyd- 'to do', au̲-, au̲d- 'to weep'. Those verbs in class V which are monosyllabic and end in a nasal (n̲, ṇ), have past stems ending in n̲r̲ and ṇḍ, which can be stated with the past suffix -d- in its assimilated alternations (n̲+d>n̲r̲, ṇ+d>ṇḍ). Examples are: tin̲-, tin̲r̲- 'to eat', uṇ , uṇḍ- 'to eat or drink'. In the fuller analysis, classes I and V differ in the future.

2.6. Class VI has past suffix -t- (written -tt-). The verbs are monosyllabic ending in a long vowel (e.g. kā-, kāt- 'to watch, wait') or ending in y (e.g. vay-, vayt- 'to put') or r (e.g. pār-, pārt- 'to see') or r̲ (e.g. pār̲-, pār̲t- 'to go to ruin'), and disyllables of shape (C) V̆CV̆, the final vowel being i or u (e.g. aḍi-, aḍit- 'to strike', pau̲, pau̲t- 'to ripen'), or (C) V̆CV̆C, the final consonant being y, or very rarely r or r̲ (e.g. mar̲ay-, mar̲ayt- 'to conceal', uyir-, uyirt- 'to breathe', kavir̲-, kavir̲t- 'to turn over, overthrow'). One verb that belongs here because of its past suffix -t- has a unique vowel alternation; cā-, cet- 'to die'.

A number of verbs in class V, monosyllables ending in l or ḷ, have past stems in which l or ḷ plus the past suffix are replaced by t̲ or ṭ respectively (written r̲r̲ and ṭṭ). By their inclusion in class V, the morphophonemic analysis in the traditional terms is l+t>r̲r̲ and ḷ+t>ṭṭ, which are transcribed in our terms into l+d>t̲ and ḷ+d>ṭ. This analysis seems less than satisfactory, since neither formula contains on the left side a voiceless component to yield the voiceless stop t̲ or ṭ. Inclusion of these verbs with class VI, which has suffix -t- (written -tt-), provides the formulas (in our terms) l+t>t̲ and ḷ+t>ṭ, satisfactory formulas involving assimilations and simplification to the canonical distribution of phonemes. Examples are: kal-, kaṭ- 'to learn', kēḷ-, kēṭ- 'to ask, hear'.

2.7. Class IV contains verbs with monosyllabic stems (short vowels) ending in ɾ or ḍ (which are traditionally written with the necessary vowel u to

allow their pronunciation as free forms, i.e. CVṟu, CVḍu), and also a few disyllabic stems ending in ṟ (which are written CVCVṟu). In the past stems, ṟ or ḍ plus the past suffix are replaced by ṯ or ṭ respectively (written ṟṟ and ṭṭ). Analysis in traditional terms (followed by Lisker) classes these essentially with classes I and V, i.e. using morphophonemic formulas in traditional terms ṟ+t>ṟṟ and ṭ+t>ṭṭ, which are transcribed in our terms as ṟ+d>ṯ and ḍ+d>ṭ. Again, the lack of a voiceless component on the left side of the formulas seems to fail to motivate the voiceless stops in the result. We would prefer to put these verbs with class VI with past suffix -t-; the formulas, then, are: ṟ+t>ṯ, ḍ+t>ṭ. Examples are: kuṟ-, kuṭ- 'to pound in a mortar', ēmuṟ-, ēmuṭ- 'to be bewildered' (really a compound of ēm- 'bewilderment' plus uṟu 'to be, happen'; cf. ēmam 'bewilderment'), iḍ-, iṭ- 'to put'.

Another group of verbs in class IV consists of monosyllabic stems (short vowels) ending in g (traditionally written CVku). In the past stems g plus the past suffix are replaced by k (written kk); e.g. pug-, puk- 'to enter'. These verbs have always presented difficulties in analysis. One type of analysis postulates an entirely different kind of past stem formation from anything in the rest of the system, viz. in traditional terms doubling (or lengthening) of the consonant (k>kk), in our terms of replacement of voiced consonant by voiceless (g>k). This type of analysis has sometimes offered temptation to include in it the verbs of the previous paragraph, i.e. those which show in the past stem ṟ>ṟṟ (*alias* ṟ>ṯ) or ṭ>ṭṭ (*alias* ḍ>ṭ); so Arden. An alternative type of analysis is that given by Lisker with a tense marker which is an allomorph of his t, our d. If the presumably postulated assimilation is to be the solution, our t (his tt) is the more satisfactory morph, as providing a voiceless component on the left side of the formula, i.e. g+t>k. This solution groups the voiced phoneme g with voiced phonemes in other positions of articulation (especially ṟ and ḍ), giving them all the same type of morphophonemics, i.e. voiced phoneme plus voiceless phoneme t yield voiceless phoneme in the position of the voiced phoneme (ṟ/ḍ/g+t>ṯ/ṭ/k); this solution seems to me to hang together better in all its parts than the others.

2.8. Classes II and VII, which have the past suffix -nd- (written -nt-), contain in class II monosyllabic stems ending in y, r, or ṟ, and disyllabic stems of form (C) VCV, in which the final vowel is i or u, or of form (C) VCVC, in which the final consonant is y, r, or ṟ, and in class VII a number of disyllabic stems of form (C) VCV in which the last vowel is a, a few of this shape with last vowel ā, and one verb of this shape with last vowel u. Examples are: class II, vīṟ-, vīṟnd- 'to fall', viṟu-, viṟund- id., kaḍay-, kaḍaynd- 'to churn', agaṟ-, agaṟnd- 'to dig'; class VII, naḍa-, naḍand- 'to walk', aṇṇā-, aṇṇānd- 'to look upward', iru-, irund- 'to exist, sit'. Two verbs that belong here because of the suffix -nd- have a long vowel in S^1 and a short vowel in the past stem: nō-, nond- 'to feel pain', vē-, vend- 'to be hot, burn, be boiled'. Two other verbs, which have irregular allomorphy otherwise, have the past suffix -nd-, but

irregular relations between S^1 and S^2 otherwise: taru (tār-, tā), tand- 'to give to the 1st or 2nd person,' varu (vār-, vā), vand- 'to come.'

Finally, we would put here those verbs of class I in which the stem ends in l or ḷ. In the past stem l and ḷ are replaced by ṉṟ and ṇḍ respectively. Morphophonemic statements are: l+nd>ṉṟ and ḷ+nd>ṇḍ; there is involved loss of the lateral after assimilation of the dental cluster nd to alveolar and retroflex position respectively. These verbs include some monosyllabic stems and some of the shape (C) VCVC. Examples are: kol, koṉṟ- 'to kill', kaṟal, kaṟaṉṟ- 'to become loose', koḷ, koṇḍ- 'to receive', curuḷ, curuṇḍ- 'to become coiled'.

2.9. The verbs with suffix -i- (-iṉ-) in class III are very largely in complementary distribution with verbs of the other classes as concerns the canonical forms of their stems; e.g. monosyllabic stems containing long vowels and ending in either voiceless or voiced stops, including the alveolar and palatal phonemes; monosyllabic stems containing short vowels and ending in voiceless stops or in homorganic nasal plus voiced stop; all disyllabic stems ending in stops. Complete analysis in these terms is not necessary here. It need be said only that this class is much larger than any of the others. Two irregular verbs have already been noted as having past tense forms that belong here, as well as other past forms: ā- with past stems āyi- and āṉ- 'to become', pō/pōv/pōkuv- with past stems pōyi- and pōṉ- 'to go'.

2.10. To summarize, Tamil has in the past stem (S^2) the following classes and subclasses; a statement such as S^1ṟ+t>S^2ṭ means 'S^1 ends in ṟ, and ṟ+t>ṭ in S^2'.

(1) $S^2=S^1+i$
(2) $S^2=S^1+nd$
  (a) S^1l/ḷ+nd>S^2ṉṟ/ṇḍ
(3) $S^2=S^1+t$
  (a) S^1ṟ/l/ḍ/ḷ/g+t>S^2ṭ/ṯ/ṭ/ṭ/k
(4) $S^2=S^1+d$
  (a) S^1ṉ/ṇ+d>S^2ṉṟ/ṇḍ

MALAYALAM

2.11. In this matter, Malayalam hardly differs in structure and membership of classes from Tamil. The chief differences are to be seen in two phonetic developments that have taken place. Voiced stop preceded by homorganic nasal have been replaced by double nasal, yielding in the relevant positions nd>nn (dental) and ṉṟ>ṉṉ (alveolar)>nn, but not ṇḍ>ṇṇ. Moreover, after i and y of stems there are palatalizations; nd>*ñj>ññ and t>c. It will have to be noted in the comparative treatment (3.7) that palatalization took place under the same conditions in colloquial Tamil also.

TODA

2.12. Corresponding to the past tense stem of all other SDr. languages, Toda and Kota have a stem, labelled S^2, which is the basis of the past tense and of the present-future tense (as well as of some other formations).

The great majority of Toda S^2 stems is represented by such contrasting sets as: ïx-, ïxy- 'to slip, be slippery', ïx-, ïxθ- 'to separate oneself from others', ïxf-, ïxt- 'to make people separate, open (loop, bangle)'; kuf-, kufy- 'to pound (clothes in washing), load (gun)', uf-, ufθ- 'to fall down (flowers, fruit),' uf-, uft- 'to shake off, empty (bag)'. On the basis of these and many other items three S^2 morphs can be set up: -y- (group 1 in the verb list), -θ- (group 2), -t- (group 3). The latter two (-θ-, -t-) are in many pairs the overt signs of the contrast between intransitive and transitive as well as being S^2 morphs. There is here a problem of statement entirely parallel to that of the Tamil morphs -nd- and -t-, which it is not necessary to attempt to solve here.[7] Many verbs, however, which have one or other of these morphs, do not occur in intransitive/transitive sets.

2.13. The stems which have S^2 suffix -θ- end in f, n, ḍ, x, r, r̲, ṛ, l, ɬ, ṣ, s; those which have S^2 suffix -t- end in this same list, plus m, l̤, š, ṣ, or various vowels (e, e˙, ï, o˙, u, u˙). The phoneme y does not occur in either of these lists of stem finals. Stems that end in y belong to two classes on the basis of the S^2 stems, one in which y plus an S^2 suffix are replaced by s, the other in which y plus an S^2 suffix are replaced by c (i.e. [ts]). Since some of these stems occur in intransitive/transitive sets with s in the intransitive and c in the transitive, the following morphophonemic statements are useful: y+θ>s (group 2a), y+t>c (group 3a)[8]; θ and s are non-stops, t and c are stop and affricate respectively. In addition, two verbs show another type of morphophonemics, viz. lose of y before t: soy-, sot- 'to die', iḍy-, iḍt- 'to seize, cling to' (group 3b).

2.14. The stems which have S^2 suffix -y- end in p, b, f, m, t, d, θ, ṯ, d̲, n, ṭ, ḍ, ṇ, k, g, x, r, r̲, ṛ, l̤, s, s̲. Stems ending in c replace this plus an S^2 suffix by č (i.e. [tš]), and stems ending in ʒ́ (i.e. [dz]) replace this plus an S^2 suffix by j (i.e. [dž]). These can be grouped with those stems that have S^2 suffix -y- by the morphophonemic statements: c+y>č (group 1a), ʒ́+y>j (group 1b), which mean that post-dental (pre-alveolar) affricate phonemes plus palatal y yield alveolo-palatal affricate phonemes.

2.15. Two verbs ending in l̤ have an S^2 suffix -d- (group 4). This is in contrast with -t- and -y- after stems ending in l̤. Two solutions are possible: (1) to group -d- with -θ-, since there is complementary distribution, and to set up a (somewhat unmotivated) morphophonemic statement: after l̤, θ>d; or (2) to set up a morph -d-. What follows will throw some light on this problem, and make alternative (2) preferable.

2.16. A group of over 60 verbs presents similar problems when analysis is attempted in terms of the suffixes already set up. In these verbs a consonant

at the end of the stem plus an S^2 suffix are replaced by another consonant, viz.:

r>θ	(6 items; group 2b)
r>d	(5 items; group 4b)
r̲>t̲	(1 item; group 3c)
ŧ>t̲	(9 items; group 3c)
l>d̲	(6 items; group 4b)
s̲>d̲	(1 item; group 4b)
n̄>d̲	(4 items; group 4b)
ṯ>ṭ	(1 item; group 3c)
ḷ>ḍ	(11 items; group 4b)
ṛ>ṭ	(13 items; group 3c)
ḍ>ṭ	(2 items; group 3c)
ṇ>ḍ	(2 items; group 4b)

2.17. To leave these statements without further analysis would be a possibility, which would, however, ignore certain obvious systematic similarities which no analysis should ignore.

A	is replaced by	B
(1) voiceless trills and laterals, alveolar and retroflex r̲ ṛ ŧ ṯ		voiceless stops, alveolar and retroflex t̲ ṭ t̲ ṭ
(2) voiced laterals and nasals, alveolar and retroflex l ḷ n n̤		voiced stops, alveolar and retroflex d̲ ḍ d̲ ḍ
(3) voiced stop, retroflex ḍ		voiceless stop, retroflex ṭ
(4) voiceless sibilant, alveolar s̲		voiced stop, alveolar d̲
(5) voiced flap, post-dental r		voiceless fricative, dental θ
(6) voiced flap, post-dental r		voiced stop, dental d

Morphophonemic statements of the form A+Y>B, in which Y is one of the S^2 suffixes already identified and in which A+Y by assimilation and simplification yields B, will not be able to utilize the suffix -y- in any convincing way. Statement (1) can easily utilize -t-, e.g. r̲+t>t̲, with t assimilated

to r̲ in position and r̲ assimilated to t in manner of articulation (i.e. trill to stop) and then simplification of t̲t̲ to t̲ (Toda has no long stops or doubled consonant clusters). In a parallel way (3) can utilize -t-. Moreover, (5) can utilize -θ-.

But (6) should not utilize -θ- if (5) has already utilized it, though it would be possible to set up two morphophonemes θ^1 and θ^2, which would result in the implausible statement $r+\theta^2>d$, improbable because two non-stops do not convincingly yield a stop. We should at this point recall that a morph -d- has earlier appeared as such in two verbs (2.15). If this were utilized as a new suffix (alternative 2 given there), (6) could be stated easily as $r+d>d$. The morph -d- would yield for (4) $s+d>\underline{d}$, which is much more satisfactory than $s+\theta>\underline{d}$ would be, and (2) also is most easily stated with -d-. We may now notice two verbs in which y before d is lost, parallel to the loss of y before t in soy-, sot- and iḍy-, iḍt- (2.13): viz. mi·y-, mi·d- 'to bathe' (used of the priest of the ti· dairy), and pöy-, pöd- 'to burn (intr.)' (group 4a).

2.18. Two of the verbs with $r+d>d$ and one with $ṇ+d>ḍ$ have a long vowel in the basic stem and a short one in S^2: po·r-, pod- 'to come', to·r-, tod- 'to give to 1st or 2nd person', ko·ṇ-, koḍ- 'to see'.

Two verbs may be stated with the S^2 suffix -y- replacing a final phoneme x of the stem, but the second has other unique features as well (stateable as ï· replaced by i·, or as $ï·+y>i·$): o·x-, o·y- 'to become', pï·x-, pi·- 'to go'; these verbs have other peculiar features, and are grouped separately in the verb list as highly irregular.

Two verbs cannot be stated obviously in terms of any of the S^2 suffixes: pux-, puk- 'to enter', ux-, uk- 'to leak' (group 3c). These verbs (like the corresponding ones in Tamil; 2.7, second paragraph) are best dealt with by a morphophonemic statement similar to others given above, viz. $x+t>k$, with t assimilated to x in position and x assimilated to t in manner of articulation, and then $kk>k$, i.e. the non-stop x is put morphophonemically on all fours with non-stops in other positions of articulation, e.g. r̲ in the statement $\underline{r}+t>\underline{t}$.

Three verbs have replacements of an alveolar non-stop by a dental stop: wïr̲-, wït- 'to undertake', sal-, sad- 'to belong to', swï·l-, swï·t- 'to be defeated'. This unexpected type of shift of articulatory position combines with other features of these forms to identify them as borrowings from neighboring languages, but they are listed as groups 3d and 4c.

The verb ni·θ-, ni·θ- 'to weave' could be stated with $\theta\theta>\theta$, but this is unique and I have refrained from including this verb in the following summary.

2.19. To summarize, Toda has in the S^2 stem the following classes and subclasses:

(1) $S^2=S^1+y$
  (a) $S^1c+y>S^2č$
  (b) $S^1\underline{z}+y>S^2j$

(2) $S^2=S^1+\theta$
  (a) $S^1y+\theta>S^2s$
  (b) $S^1r+\theta>S^2\theta$
(3) $S^2=S^1+t$
  (a) $S^1y+t>S^2c$
  (b) $S^1y+t>S^2t$
  (c) $S^1\underline{r}/\underline{\underline{t}}/\underline{r}/\underline{\underline{t}}/\underline{d}/x+t>S^2\underline{t}/\underline{t}/\underline{t}/\underline{t}/\underline{t}/k$
  (d) $S^1\underline{r}/l+t>S^2t/t$
(4) $S^2=S^1+d$
  (a) $S^1y+d>S^2d$
  (b) $S^1r/l/n/s/\underline{l}/\underline{n}+d>S^2d/\underline{d}/\underline{d}/\underline{d}/\underline{d}/\underline{d}$
  (c) $S^1l+d>S^2d$

The points omitted in this schema are that in 4b two verbs included in $S^1r+d>S^2d$ and one included in $S^1\underline{n}+d>S^2\underline{d}$ have long vowel in S^1 and short vowel in S^2, the peculiarities of o·x-, o·y- and pï·x-, pi·-, and the unique ni·θ-, ni·θ-.

KOTA

2.20. In Kota, as in Toda, there corresponds to the past tense stem of all other SDr. languages than these two a stem, labelled S^2, which is the basis of the past tense and of the present-future tense (as well as of some other formations).

Kota has contrasting sets such as: teḷ-, teyḷ- (with metathesis from teḷ-y-) 'to winnow gently', veḷv-, veḷd- 'to grow, become fat, (grain) become ripe', veḷv-, veḷt- 'to cause to grow; to become pale'. These yield a set of S^2 morphs: -y- (group 1), -d- (group 2), -t- (group 3). The latter two are in many pairs related as intransitive and transitive suffixes, and present the same problem of analysis that Tamil and Toda do. Since, however, many verbs have one or the other of these two morphs without occurring in intransitive/transitive sets, the morphs may be treated independently here.

2.21. The stems which have the S^2 suffix -d- end in r, ṛ, l, ḷ, v, n, m, and in u·; those which have the S^2 suffix -t- end in r, ṛ, l, ḷ, v, m, c, g, or various vowels (a, a·, e·, o·, u·). The phoneme y does not occur in either of these lists of stem finals. Stems that end in y have an S^2 stem in which y plus one of the S^2 suffixes are replaced by c (group 3a). Since c is voiceless, we may choose the voiceless stop t as the S^2 suffix for a morphophonemic statement $y+t>c$, which is essentially a statement involving palatalization of t to c (which is a phoneme with free variation between [s] and the alveolo-palatal affricate [č]).

2.22. A few verbs with S^2 suffix -t- have g at the end of S^1 alternating with ṛ at the end of the S^2 stem before t; e.g. ag-, aṛt- 'to weep' (group 3b). One verb has similar morphophonemics with y and ṛ alternating: me·ki·- (<*me·kay-), me·kaṛt- 'to get up' (group 3b). Similar morphophonemic

alternation of ṛ and y is seen in a small set of verbs (three), which have S^1 ending in ṛt and S^2 in yt (e.g. kaṛt-, kayt- 'to wash'; group 3b); a parallel set of two verbs (group 2a) has S^1 ending in ṛd and S^2 in yd (e.g. aṛd-, ayd- 'to tell'). These could be stated as having simplification of tt and dd in S^2, i.e. kaṛt-, (kayt-t->) kayt-, etc.

2.23. The stems which have S^2 suffix -y- end in p, b, m, t, d, ṯ, ḏ, ṭ, ḍ, k, g, r, ṛ, ḷ. In some of these C+y>y+C, i.e. there is metathesis; the details are not important here. Stems ending in c and stems ending in j have S^2 identical with S^1, i.e. c+y>c, j+y>j (group 1a). Three small subclasses of verbs have S^1 ending in ṯ or ṭ or ṛ, and in S^2 replacement of these phonemes by c (group 1b). These can be stated as palatalization by the suffix y, i.e. ṯ/ṭ/ṛ+y>c. One verb (group 1b) has S^1 ending in ḍ, and S^2 replacement of ḍ by j; this likewise is to be stated as ḍ+y>j.

2.24. In two subclasses -d- is assimilated in position to the nasal n (apico-alveolar) or ṇ at the end of S^1 (group 2b); e.g. i·n-, i·nḏ- '(animal) bears young', korṇ-, korṇḍ- 'to become numb'. One verb in the second subclass has a long vowel in S^1 and a short in S^2: ka·ṇ- (which alternates with kaṇ- in some forms based on S^1), kaṇḍ- 'to see'.

2.25. In a number of subclasses there are problems of analysis (as in Tamil and Toda) when a consonant at the end of the stem plus an S^2 suffix are replaced by another consonant.

d>t	(1 item; group 3d)
r>t	(1 item; also ir-, it- 'to be'; group 3d)
r>d	(2 items; group 2c)
r>ṯ	(6 items; group 3d)
r>ḏ	(1 item; group 2c)
l>ṯ	(2 items; group 3d)
l>ḏ	(1 item; group 2c)
n>ḏ	(5 items; group 2c)
ḷ>ṭ	(1 item; group 3d)
ḷ>ḍ	(1 item, which consists of an uncertain number of homophones; group 2c)
ṛ>ṭ	(7 items; group 3d)
ḍ>ṭ	(2 items; group 3d)
ṇ>ḍ	(14 items; group 2c)

2.26. The same type of analysis that was used in Toda (2.17) may be applied here more easily, since the end results here fall into two classes of phonemes, voiceless stops and voiced stops. Assimilation in two directions and simplification of doubled consonants will yield the end results if the -t- and -d- suffixes are used. In addition, two r morphophonemes can be set up, r^1 (dental, or post-dental) to account for the dental stop results in r^1+t>t and r^1+d>d, and r^2 (alveolar) to account for the alveolar stop results in r^2+t>ṯ and r^2+d>ḏ.[9]

2.27. One verb with $r^1+d>d$ and one with $r^2+d>\underline{d}$, have a long vowel in the basic stem and a short one in S^2: va·r-, vad- 'to come', ta·r-, ta$\underline{d}$- 'to give to 1st or 2nd person'.

Two verbs may be stated with the S^2 suffix -y- replacing a final phoneme g of the basic stem: a·g-, a·y- 'to become', o·g-, o·y- 'to go'; these verbs have other peculiar features, and are grouped separately in the verb list.

The verb ig-/ir-, it- 'to be': ir-, it- may be included in the type $S^1r^1+t>S^2t$; ig-, it- would be parallel to a·g-, a·y-, but with suffix -t-.

Two verbs have replacement of alveolar non-stop 1 by a dental stop: co·l-, co·t- 'to be inferior, fail' (group 3e); cal-, cad- '(wife) is a suitable mate, (coin) is genuine, (prayer) is acceptable (to god)' (group 2d). As in the parallel Toda examples (2.18), the unexpected type of shift of articulatory position suggests that the items are borrowed from a neighboring language (specifically Badaga).

2.28. Three items can only be fitted in by positing two suffixes for each S^2: vey-, vedy- 'to be burned, (broth) boils'; iṛ-, iṭy- 'to have sexual intercourse with'; maṇ-, mayṇḍ- 'to shave'. The statements would be: vey-+ +-d-+-y-, with yd>d; iṛ-+-t-+-y-, with ṛt>ṭ; maṇ-+-d-+-y-, with ṇd> ṇḍ and metathesis of y.

2.29. To summarize, Kota has in the S^2 stem the following classes and subclasses.

(1) $S^2=S^1+y$ (sometimes there is metathesis: $S^1C+y>S^2yC$)
- (a) $S^1c/j+y>S^2c/j$
- (b) $S^1\underline{t}/t/\underline{r}/\underline{d}+y>S^2c/c/c/j$

(2) $S^2=S^1+d$
- (a) $S^1\underline{r}d+d>S^2yd$
- (b) $S^1n/\underline{n}+d>S^2n\underline{d}/\underline{n}\underline{d}$
- (c) $S^1r^1/r^2/l/n/\underline{l}/\underline{n}+d>S^2d/\underline{d}/\underline{d}/\underline{d}/\underline{d}/\underline{d}$
- (d) $S^1l+d>S^2d$

(3) $S^2=S^1+t$
- (a) $S^1y+t>S^2c$
- (b) $S^1g/y+t>S^2\underline{r}t/\underline{r}t$
- (c) $S^1\underline{r}t+t>S^2yt$
- (d) $S^1d/r^1/r^2/l/\underline{l}/\underline{r}/\underline{d}+t>S^2t/t/\underline{t}/\underline{t}/\underline{t}/\underline{t}$
- (e) $S^1l+t>S^2t$

The only points omitted in this schema are that in 2b one verb and in 2c two verbs have long vowel in S^1 and short vowel in S^2, the peculiarities of vey-, vedy-, iṛ-, iṭy-, and maṇ-, mayṇḍ-, the two irregular verbs a·g-, a·y- and o·g-, o·y-, and the verb ig-, it-.

KOḌAGU

2.30. The great majority of Koḍagu past tense stems (S^2) can be stated in terms of three morphs: -i-, -nd-, -t-.[10] The latter two are in some pairs related as intransitive and transitive, as well as representing past tense, and present the same problem of analysis, which may yield to the same kind of solution, as the parallel morphs in Tamil, Toda, and Kota. The morphs may be treated independently of this problem, just as in the treatment of the other languages.

2.31. The stems which have the past suffix -nd- (group 2) are nearly all of the type (C) V̆CV̆, wih the vowel of the second syllable a, which appears throughout the verb, or a, which alternates with e elsewhere in the verb (CVCe-∞CVCa-). In one verb of this canonical form, the second vowel is ï in the past tense and i elsewhere (kuḍi-, kuḍïnd- '[earth] shakes'). In four verbs the basic stem is monosyllabic and ends in a vowel (no-, nond- 'to pain', ka·-, ka·nd- 'to caw', ku·-, ku·nd- 'to crow', co·-, co·nd- 'to become red').

2.32. The stems which have the past suffix -t- (group 3) are nearly all of the type (C) V̆CV̆, with the vowel of the second syllable ï, a, or e. In four verbs the basic stem is monosyllabic and ends in a vowel (o-, ot- 'to consent', to-, tot- 'to salute', ka·-, ka·t- 'to wait', mu·-, mu·t- 'to grow up').

2.33. When a stem is of the canonical type (C)V̆CV̆ and ends in i, there are two types of past stem, one with suffix -ñj-, the other with suffix -c-. In other inflexional matters the former are parallel with those verbs that have past suffix -nd- and the latter with those that have past suffix -t-; when the intransitive/transitive contrast occurs, -ñj- and -nd- are both linked with the intransitive, -c- and -t- with the transitive. It is clear, then, that -ñj- and -c- are palatalizations (because of the preceding i) of -nd- and -t-. Similarly, monosyllabic stems that have a long vowel and end in y show past stems of two types, one with y replaced by ñj, the other with y replaced by c. The required morphophonemic statements, examples of palatalization, are: y+nd>ñj, y+t>c. Examples are: kari-, kariñj- 'to be singed', kari-, karic- 'to singe', te·y-, te·ñj- 'to wear off (intr.)', te·y-, te·c- id. (tr.). One verb of the ñj class has a long vowel in S^1, and the corresponding short one in S^2: be·y-, beñj- 'to be warmed, burned, (rice) cooks'.

Verb stems that have a short vowel followed by y fall into two classes, one with past suffix -ñj-, the other with past suffix -c-, y being retained in both classes; otherwise, these verbs show the characteristics of those just described. The suffixes are palatalizations of -nd- and -t- respectively. Examples are: kay-, kayñj- '(time) passes', kay-, kayc- 'to pass time'.

One verb (really two homophones) with a short vowel and y replaces y plus the past suffix (-t-) by c: bey-, bec- 'to keep, place; to cook (rice)'.

All these verbs are in groups 2a and 3a.

2.34. Five verbs with monosyllabic stems ending in y have past stems

with y replaced by jj (group 4a); e.g. key-, kejj- 'to work'. These cannot be fitted into either of the other two classes, and suggest another morph -d- (voiced like jj) and palatalization (y+d>jj) parallel to the two palatalization statements of 2.33. One of the verbs has a long vowel in S^1 and a short one in S^2: ne·y-, nejj- 'to spin (thread)'.[11]

As such, -d- does not appear unless it is used in stating the two verbs tin-, tind- 'to eat' and *en-, end- 'to say so-and-so'. There is no absolute necessity for this, since in what follows in 2.35 either -t- or -nd- added to these verbs might suffice, with the necessary morphophonemic statement (there are no contrasting examples of stems ending in n). Two verbs ending in ṇ have past stems in ṇḍ, one of them having a long vowel in S^1 and a short vowel in S^2: uṇ-, uṇḍ- 'to eat a meal', ka·ṇ-, kaṇḍ- 'to see' (group 4b). The morph -d- is used, with a morphophonemic statement of assimilation: ṇ+d>ṇḍ; but again -t- or -nd- would be sufficient.

2.35. The verbs that fit into the scheme only by means of statements of assimilation and simplification of clusters parallel those of the other languages. Two suffixes, -t- and -nd- suffice, with a very few exceptions, which are given following the others.

The replacements of the final consonant of the stem by another consonant are as follows, with a division into two sections on the basis of the postulated -nd- and -t-:

(1; group 2b)	
r>nd	(11 items; one verb with i before r shows palatalization of nd, viz. ir-, iñj- 'to be in a place'; group 2c)
ll>nd	(3 items)
ḍ>ṇḍ	(4 items)
(2; group 3b)	
r>t	(3 items)
l>t	(1 item)
ḍ>ṭ	(9 items; also naḍï, naṭ- 'to plant')

One verb, gell-, gedd- 'to win', does not fit neatly into the scheme. It would be possible merely to list it as belonging in the group with suffix -t-, with a unique type of morphophonemic statement ll+t>dd. It is preferable, however, having established -d- as a probable morph, to use it here and to make the statement ll+d>dd (group 4c).

There remains a group with ḷ in S^1, and four different replacements in S^2: ḷḷ>ṇḍ (1 item), ḷ/ḷḷ>ṭ (2 items), ḷ>t (6 items), ḷ>dd (3 items), the last three items and two of the previous groups having a long vowel in S^1 and a short vowel in S^2. For the first group of the four -nd- is indicated (ḷḷ+nd>ṇḍ; group 2b); koḷḷ-, koṇḍ- 'to take'. For the second group -t- can be used (ḷ/ḷḷ+t>ṭ; group 3b); kaḷḷ-, kaṭ- 'to steal', kë·ḷ-, kë·ṭ- 'to ask, hear'. The remaining two groups (groups 3b and 4d)) are the following items: poḷ-, pot- 'to fight',

ï·ḷ-, ï·t- 'to drag', o·ḷ-, o·t- 'to have sexual intercourse with', pu·ḷ-, pu·t- 'to bury,' ca·ḷ-, cat- 'to die,' u·ḷ-, ut- 'to plow'; ba·ḷ-, badd- 'to rule,' bu·ḷ-, budd- 'to fall', ë·ḷ-, ëdd- 'to get up'. They are unexpectedly peculiar in that the result of assimilation is dental rather than retroflex. When a similar phenomenon (involving dental and alveolar) turned up in the Kota and Toda material, only a very few items were involved and it was suggested that they were borrowed from a neighboring language. Nine items seem too many to explain in this way. Probably the most convenient solution is to set up a new morphophoneme, viz. ḷ², for the ḷ that ends these nine items, and morphophonemic statements: ḷ²+t>t, and, since -nd- is not a plausible suffix to yield dd, ḷ²+d>dd.[12]

2.36. Two verbs could be stated with -yi- in S^2 replacing final g of S^1: a·g-, a·yi- 'to become', po·g-, po·yi- 'to go'; but both verbs have other peculiarities and they are listed separately.

2.37. To summarize, Koḍagu has in the past stem (S^2) the following classes and subclasses.

(1) $S^2 = S^1 + i$
(2) $S^2 = S^1 + nd$
  (a) $S^1i/V{\cdot}y/\check{V}y + nd > S^2iñj/V{\cdot}ñj/\check{V}yñj$
  (b) $S^1r/ll/ḷḷ/ḍ + nd > S^2nd/nd/ṇḍ/ṇḍ$
  (c) $S^1ir + nd > S^2iñj$
(3) $S^2 = S^1 + t$
  (a) $S^1i/Vy/\check{V}y + t > S^2ic/Vc/\check{V}yc$
  (b) $S^1r/l/ḷ^1/ḷ^2/ḍ + t > S^2t/t/ṭ/t/ṭ$
(4) $S^2 = S^1 + d$
  (a) $S^1y + d > S^2jj$
  (b) $S^1ṇ + d > S^2ṇḍ$
  (c) $S^1ll + d > S^2dd$
  (d) $S^1ḷ^2 + d > S^2dd$

The points omitted in this schema are the fairly numerous items (eight in all) in which there is quantitative vowel alternation, and the two irregular verbs in 2.36.

KANNAḌA

2.38. The past tense stems of Kannaḍa[13] are almost all stateable in terms of three morphs: -id-, -d-, -t-; a very few show a fourth morph -nd-. The first two divide between them the great majority of verbs, -id- being structurally parallel and parallel in its distribution with the -i- suffix of Tamil, and -d- occurring over the greater part of the distribution range covered by the remaining morphs of Tamil.

2.39. The morph -t- is uncommon in comparison with the other two -id-

and -d-. That it must be set up is clear from a very few sets in which it contrasts minimally with -d-; e.g. kāy, kāyt-/kāt- 'fruit to grow or develop', kāy, kāyd-/kād- 'to grow hot; to guard'.

The few subclasses of verbs that clearly require -t- are given below. Meanwhile, it must be noted that some verbs are given with two past stems, one ending in -d- and the other in -t-; e.g. aṟi, aṟid-/ aṟit- 'to know', for whatever this may mean (is there historical priority of one over the other?). And there is a scattering of forms with -t- (e.g. baṟe, baṟat- 'to grow lean or dry'), which contrast with the many dozens of those of the same type but with -d- (e.g. are, arad- 'to grind'), or like nōn, nōnt- 'to observe a religious obligation', which contrast with nān, nānd- 'to become wet' (nānd- develops in NK to nād-); listing and, if possible, interpretation is a desiderandum.

The morph -t- is found in the following classes:

(1) a number of monosyllabic verbs ending in $\overline{V}$l have -t-, and later in the chronological development (in the modern language) lose l; e.g. nūl, nūlt/nūt- 'to spin';

(2) a number of monosyllabic verbs ending in $\breve{V}$ṟ have -t-, and ṟ>r; later in the chronological development, but already in OK, rt>tt; e.g. uṟu, urt/utt- 'to be, come about'; also some disyllabic verbs, e.g. bēsaṟ, bēsatt- 'to grow weary';

(3) a number of monosyllabic verbs ending in ṟ have -t-, and ṟ is lost from MK on, with t doubled after $\breve{V}$; e.g. uṟ, uṟt-/utt- 'to plow', pūṟ/hūṟ, pūṟt-/hūt- 'to bury'; at least one verb with a long vowel develops historically a past stem with a short vowel: kiṟ, kīṟt-/kiṟt/kitt- 'to uproot' (Kittel also gives kīṟd-);

(4) several monosyllabic verbs ending in āy have -t-, and y is lost, apparently in NK; e.g. kāy, kāyt-/kāt- 'fruit to grow or develop'; in one verb the long vowel is shortened and t is doubled after the short vowel: sāy, satt- 'to die';

(5) a number of monosyllabic verbs ending in short vowel plus d, ḍ, or g are stateable with -t- and assimilation (d+t>tt, ḍ+t>ṭṭ, g+t>kk); e.g. mudu, mutt- 'to become old, full-grown, mature', iḍu, iṭṭ- 'to put', pogu, pokk- 'to enter'.

The verb ī, itt- 'to give, permit' should be mentioned for its quantitative alternation. Possibly the past stems of isu/esu, ecc- 'to shoot (as an arrow)', pasu, pacc- 'to share out', and bisu/besu, becc- 'to solder' can be described with a morphophonemic statement s+t>cc; so Kittel.

2.40. The -d- morph occurs in the following classes with morphophonemic changes of stem or suffix or both:

(1) one verb ending in r has -d-, and r is lost, with d doubled after a short vowel: ir, ird-/idd- 'to be';

(2) several verbs ending in l have -d-, and later in the chronological development (MK or NK) ld>dd; e.g. gel, geld-/gedd- 'to win';

(3) several verbs ending in $\breve{V}$n have -d-, but several in $\overline{V}$n have -d- and

lose n in NK; e.g. tin, tind- 'to eat', īn, īd- '(animal) to bring forth young' (but NK has īt-);

(4) three verbs ending in V̄ṟ have -d- and the vowel is shortened, and ṟd>rd>dd: ēṟ, eṟd-/erd-/edd- 'to rise', bīṟ, biṟd-/bird-/bidd- 'to fall', āṟ, āṟd-/aṟd-/ard-/add- 'to be immersed';

(5) two verbs ending in ṇ have -d- which is assimilated in position to ṇ (ṇ+d>ṇḍ); one of these verbs has a long vowel in S^1 and a short one in S^2: uṇ, uṇḍ- 'to eat a meal', kāṇ, kaṇḍ- 'to see';

(6) several verbs ending in V̄y have -d-, and y is lost, apparently in NK; e.g. kāy, kāyd-/kād- 'to grow hot; to guard'.

For most disyllabic verbs ending in e, it is recorded that before the past morph -d- there are alternative forms with the vowel a replacing e; e.g. are, arad-/ared- 'to grind'. Forms with a and with e are apparently of equal age in the documents.

Those verbs that in OK had S^1 ending in a consonant, but pronounceable as a free form, had S^2 formed with -d-(or -t-). In MK and NK these S^1 forms ceased to be free and required final -u to produce a free form; in the past stem -id- was substituted for -d- or -t-. This statement (Kittel, Grammar p. 103) is qualified by 'as a rule' and 'not infrequently' and in fact is too sweeping; I am unable to make it exact. An example is kēḷ, kēḷd- 'to ask, hear', which in MK optionally and in NK always has past stem kēḷid-. This is, of course, an extension of the range of the -id- past morph at the expense of the others.

2.41. Three verbs have -nd- as past morph, with shortening of an S^1 long vowel in S^2: bē/bēyu/beyyu, bend- 'to be burned, be cooked', nō/nōyu/noyyu, nond- 'to pain', mī/mīyu, mind- 'to take a bath' (also past stem mīd-).

Since -nd- must be set up for these three, it is probably to be posited also for the following three subclasses:

(1) several verbs ending in l, with loss of l before nd; e.g. kol, kond- 'to kill', nil, nind- 'to stand' (also nilt- and nint-);

(2) the verb koḷ, koṇḍ- 'to seize', with loss of ḷ after assimilation of nd to the retroflex position;

(3) two verbs ending in r, with loss of r before nd, and other irregularities of allomorphy: bar (bār-, bā), band- 'to come', tar (tār-, tā), tand- 'to bring'.

2.42. Two verbs are very irregular, āgu 'to become' and pōgu 'to go'; in the past tense stem ād- and āy-, pōd- and pōy- are found.

2.43. To summarize, Kannaḍa has in the past stem (S^2) the following classes and subclasses.

(1) $S^2 = S^1 + i\text{-}d$

(2) $S^2 = S^1 + d$

(a) S^1r/l/n/ṟ/ṇ/y + d

$>S^2$rd/ld/nd/ṟd/ṇḍ/yd

dd dd rd d

dd

(3) $S^2 = S^1 + t$

(a) S^1d/l/ṟ/ṛ/ḍ/g/s/y + t >
S^2tt/lt/rt/ṟt/ṭṭ/kk/cc/yt
t tt tt tt

(4) $S^2 = S^1 + nd$

(a) S^1r/l/ḷ/ + nd > S^2nd/nd/ṇḍ

Of the points that have been omitted in this schema, the chief one is the quantitative alternation of vowels that is found in numerous verbs.

3. *Comparative treatment of SDr. past tense formations*

3.1. Even superficial inspection of the SDr. past tense suffixes makes it clear that the languages, with the exception of Kannaḍa, have closely related systems. The Kannaḍa system is most easily explained as having started from a system like that of the other languages and as, on the one hand, having failed to innovate as the other SDr. languages have done, and on the other hand, having innovated independently rather radically (but not in the direction of the other Dr. languages).

3.2. The general SDr. system is one in which the core of the past tense formations consists of four morphs: *-i-, *-nd-, *-t-, and *-d-. As in Tamil, the distribution of stems is in great part phonologically determined as between *-i- and the other suffixes. The suffix *-i- is found with stems, whether monosyllabic or disyllabic, that end in a stop or in a homorganic nasal plus stop, with the exception of monosyllabic stems containing a short vowel and ending in a voiced stop (chiefly ṟ, ḍ, and g). The other suffixes are found with stems of other composition, essentially those that end in consonant phonemes that are not stops and those that end in vowels. The distribution of these other suffixes is determined in part phonologically, in part by whether the verb is intransitive or transitive; e.g. all disyllabic verbs ending in the vowel *a have *-nd-; many disyllabic verbs ending in *i or *u and many verbs, whether monosyllabic or disyllabic, ending in *y, *r, or *ṟ have *-nd- when intransitive and *-t- when transitive, but if voice does not enter into the matter, the selection as between these two past suffixes is arbitrary. When stems are of other phonemic shapes, there is usually some obscuring morphophonemic replacement of final consonant plus past suffix. Sometimes there is a choice of suffix, e.g. l+t>ṭ and l+nd>ṉṟ, ḷ+t>ṭ and ḷ+nd>ṇḍ; sometimes only one result occurs, e.g. ṟ+t>ṭ, ḍ+t>ṭ, g+t>k, n+d>ṉṟ, ṇ+d>ṇḍ. For some phonemic shapes of stem all three suffixes (*-t-, *-d-, *-nd-) occur, e.g. with monosyllabic stems ending in y.

The membership of the various subclasses of this system shows considerable agreement as between the various languages (including Kannaḍa). Some reshaping of the system resulted from the variant phonemic representations of the reconstructed phonemes and morphemes in the various languages.

A more important reshaping is seen when a subclass shifted its position in the system by some other process than phonetic change.

3.3. The suffixes *-t- and *-nd-, except in the palatalizing context to be treated later (3.7-10), and when there is no morphophonemic replacement of final stem consonant plus suffix (such replacement must be reconstructed already for PSDr.), remain essentially in Tamil and Koḍagu. In Malayalam at all periods *-nd- is represented by -nn-.

3.4. For Kannaḍa we do not yet have a complete statement of the development of *-nd-, whether past suffix or not.[14] It seems probable that it will be approximately: when *-nd- immediately follows a short vowel of an initial syllable, it remains (e.g. bend-, past stem of bē 'to be burned', Ta. vend-); otherwise, i.e. when it comes immediately after a long vowel or after a short vowel or long vowel plus a consonant (usually y) of an initial syllable, or when it follows the vowel (or vowel plus consonant r or r̤) of an original (i.e. PSDr.) second syllable, the nasal is lost (e.g. kūdal 'hair', Ta. kūndal; aydu 'five', Ta. ayndu; pordu 'to come in contact, agree', Ta. porundu). This being so, the past suffix *-nd- when occurring with a disyllabic stem becomes -d-; e.g. agaṛ̤, agaṛ̤d- 'to dig' (Ta. agaṛ̤, agaṛ̤nd-), iṛ̤i, iṛ̤id- 'to descend' (Ta. iṛ̤i, iṛ̤ind-), naḍe, naḍad- 'to walk' (Ta. naḍa, naḍand-; Ka. naḍe is analogically remade on the basis of stems with *-ay-, see 4.7), ir, ird- 'to be' (Ta. iru, irund-). Examples of -d- in other contexts, viz. after a monosyllabic stem containing a long vowel or containing a short or long vowel plus a consonant: mī, mīd- 'to take a bath' (cf. also the other past stem mind-; also Parji mī-, mīñ-, the latter showing the development *mīnd-$>$*mīñj-$>$mīñ-[15]); āy, āyd- 'to collect, select' (Ta. āy, āynd-); sōr, sōrd- 'to become loose' (Ta. cōr, cōrnd-); suy, suyd- 'to breathe, sigh' (Ta. toy, toynd- 'to breathe short and hard, as in asthma'). Examples of -nd- as retained in a monosyllable after a short vowel: mind-, past stem of mī 'to take a bath' (cf. above); band-, past stem of bar- 'to come' (Ta. vand-); nond-, past stem of nō 'to pain' (Ta. nond-).

3.5. In Toda all PSDr. clusters of homorganic nasal plus voiced stop lose the nasal. We should expect the result in the dental position to be the stop d, and there are examples of this: ud- 'to jostle' (Ta. Ma. undu 'to push, thrust'), kod 'pubic hair' (Ma. kandu 'vulva'), pod- S^2 stem of po·r- 'to come' (Ta. vand-). The combination is not a common one in reconstructed PDr. or PSDr., except in the past suffix *-nd-, and this suffix becomes -θ- in Toda. It seems that a statement is needed, somewhat similar to that given for Kannaḍa: when PSDr. *-nd- immediately follows a vowel of a first syllable (chiefly short vowels, but also mi·d-, past stem of mi·- 'to bathe'; cf. 3.4), it became Toda -d-; otherwise, it became -θ-. Examples: pod- (given above); pöd-, past stem of pöy- 'to be hot' (Ta. vend-); pïḍ-, pïḍθ- 'to fall' (Ta. viṛ̤u, viṛ̤und-); naṛ̣-, naṛ̣θ- 'to walk' (Ta. naḍa, naḍand-); aḍ-, aḍθ- 'to dig' (Ta. agaṛ̤, agaṛ̤nd-); kar-, karθ- 'to bellow' (Ta. karay, karaynd-); ïr-, -ïθ- (Ta. iru, irund-). This replacement of *-nd- by -θ- means that there has been

merging of θ of this origin (i.e. from an earlier *d derived from *nd by loss of nasal) with θ derived from PSDr. *d (since PSDr. *d in intervocalic position was probably a voiced dental fricative, Toda θ in its intervocalic allophone, which is voiced, in fact is identical phonetically with PSDr. intervocalic *d). The merging took place only in one syllabic position, i.e. when it ended a second syllable of a PSDr. word.

3.6. In Kota there was loss of the nasal in most occurrences of PSDr. *-nd-, the result being d, which is a stop with a fricative δ offglide. All verbs that have *-nd- in PSDr. have d in Kota (unless there has been some shift for some other reason); e.g. vad-, S² stem of va·r- 'to come' (Ta. vand-); naṛv-, naṛd- 'to walk' (Ta. naḍa, naḍand-); av-, avd- 'to dig' (Ta. agaṟ, agaṟnd-); karv-, kard- 'to bellow' (Ta. karay, karaynd-); vey-, *ved- 'to be burned' (Ta. vē, vend-) has been remade by addition of another past suffix -y-, producing vedy-.

3.7. After the vowel *i and the palatal spirant *y, the suffixes *-t-, *-d-, *-nd- are palatalized in all the languages but Old Tamil and Kannaḍa; in some contexts the palatalizing *y is lost as a separate phoneme. Beginning already in MTa., -t- and -nd- became -c- and -ñj- in these conditions; Malayalam shows this in all periods, with the further development of ñj to ññ. Koḍagu also shows this palatalization (groups 2a, 3a), but does not follow Malayalam in its further development. The subclass of stems ending in y and having suffix *-d- is found as such in Old Tamil (e.g. cey, ceyd- 'to do'), but in NTa. has shifted into the -nd- class in its palatalized form, with y+nd>ñj (e.g. cey, ceñj- 'to do'). The subclass remains separate from the others only in Koḍagu, where y+d>jj (group 4a; e.g. key-, kejj- 'to work'). In Kannaḍa, where *d remains d (a voiced stop), the -d- of this class has merged with -d- from *-nd- after Vy in monosyllabic stems; e.g. gey-, geyd- 'to do'.

3.8. In Toda the general loss of short vowels in non-initial (i.e. non-accented) syllables affects all vowels but *i; i.e. *a, *u, and also *ay, which presumably had become *e, are lost in such syllables, while *i becomes y. Hence it results that stems of the shape *Vy and *VCi fall together in one canonical form V(C)y. In a verb with such a stem, y plus *-t- become c (i.e. [ts]); e.g. ko·y-, ko·c- 'to bear fruit' (Ta. kāy, kāyt-); paṟy-, paṟc- 'to pluck forcibly' (Ta. paṟi, paṟit-). Similarly, y plus *-nd- becomes s; e.g. aṟy-, aṟs- 'to know' (Ta. aṟi, aṟind-, Ka. aṟi, aṟid-). This change must have gone through a stage in which *-nd- lost the nasal.[16] If the resulting -d- merged with To. θ, we have another context to add to the previous statement for *-nd->-d->-θ-, viz. when it follows a monosyllable ending in Vy; e.g. tüy-, tüs- 'to breathe heavily' (Ta. toy, toynd- 'to breathe short and hard, as in asthma', Ka. suy, suyd- 'to breathe, sigh'); ko·y-, ko·s- 'to be hot' (Ta. kāy, kāynd-, Ka. kāy, kāyd-/kād-). That there was such a merger seems indicated by the merger with this class of the subclass which in Tamil ends in y and has suffix *-d-, the *-d- having (as was said in 3.5) the phonetic value seen in Toda θ; i.e. y+*-d->y+θ>s (merging with y+*-nd->y+*-d->y+θ>s); e.g. kïy-,

kïs- 'to do'. It is to be noted that these Toda developments y+*-t->c, y+*-nd-/*-d->s, are hardly to be classed as straightforward palatalizations; they are rather compromises, dentals and palatals merging in the intermediate post-dental position.

3.9. In Kota there has been after its y a complete merger of *-t-, *-d-, and *-nd- (the latter having lost the nasal) as c; the Kota y, like Toda y, represents *y at the end of a first syllable and *i in a non-initial syllable. This complete merger of the past morphs makes it uncertain whether in pre-Kota the *-d- class was kept separate from the other two before the merger, or whether possibly it went through an analogical shift of the type seen in NTa. It has been recalled in 2.21 that Kota c is a phoneme with free variation between palatal č and sibilant s; the morphophonemic change can be validly called palatalization. Examples are: ayr-, arc- '(mouth) burns' (Ta. ari, arit- 'to have an acute itching sensation', To. ary-, arc '[woman] desires sexual intercourse'); vay-, vac- 'to keep, place' (Ta. vay, vayt-, To. poy-, poc-, Ka. bay, bayt-); gey-, gec- 'to do' (Ta. cey, ceyd-); a·y-, a·c- 'to pick up, pluck' (Ta. āy, āynd- 'to search, select, pluck', Ka. āy, āyd- 'to gather, select', Koḍ. a·y-, a·ñj- 'to choose'); ayr-, arc- 'to know' (Ta. aṟi, aṟind-). Since c is voiceless, it seems probable that the process involving the voiceless stop suffix *-t- was the primary one and that the other suffixes somehow merged with it. The merger has, of course, neutralized the intransitive/transitive contrast for those members of this class of verbs that had it and marked it by a contrast between the past suffixes *-nd- and *-t-; e.g. mury-, murc- 'to break (of a stick-like thing)' is either voice syntactically, though in Tamil and Toda the verb belongs to the two classes and shows both types of past stem. Further complications are added in Kota in some verbs by the assignment of this type of verb to the intransitive, and addition of a further suffix -c- (y+c>c) for the transitive; it is doubtful whether my data are sufficient to work out all the descriptive and historical complications.

3.10. Kannaḍa in this matter of palatalization has failed to go the way of the other SDr. languages, i.e. it has stood apart from their innovation. Even so, however, they innovated to some extent independently of one another, which makes this failure of Kannaḍa to share the trait not a very strong piece of evidence for a break between Kannaḍa and all the other SDr. languages.

3.11. Most of the rest of the morphophonemic replacements that have been analysed in the accounts of the various languages have little relevance to the purpose of the present paper, which is to identify subgroupings in SDr. A number of the replacements are innovations peculiar to one language each; e.g. c+y>č and ẓ+y>j in Toda (groups 1a, 1b), ṯ/ṭ/ṛ+y>c in Kota (group 1b). Those others that involve replacements of alveolar and retroflex phonemes plus the dental past suffixes by other alveolar and retroflex phonemes are found in about the same list of verbs throughout all the SDr. languages; a number of them are found further afield in the Dravidian family,

and it is to be assumed that some of these formations are to be reconstructed for Dravidian as a whole. The SDr. languages are individuated in the matter of these verbs by some differences of phonetic development or by shifting of occasional verbs from one or other of these somewhat 'irregular' subclasses to other 'more regular' classes. If Koḍagu and Kannaḍa agree in having no alveolar stops in the past tense forms but in having substituted dentals for them, this is in fact part of a general development throughout the whole phonological system of the two languages, and can be counted an isogloss that differentiates them from the remaining SDr. languages. It is not a very impressive one, since the only other development could have been to retroflex stops (the development in Telugu), but it still must be reckoned with.

3.12. An innovation in the verb system of Kannaḍa that differentiates it markedly from its SDr. relatives is the great spread of its suffix -d-. We have found two origins for this suffix: -d- as the continuant of *-d- in the very small class of monosyllabic stems ending in v̆y (e.g. gey, geyd- : Ta. cey, ceyd-), and, in a much larger class, -d- as the development of *-nd-, except when the latter immediately followed a short vowel in a monosyllabic stem and was retained (e.g. band- and nond- in 3.4). These two classes were reinforced, though by a very small number of items, by some of those verbs which in PSDr. had *-nṟ-, which became Ka. d (e.g. īn, īd- '[animal] to give birth', Ta. īn, iṉṟ-). It would seem, then, that the Kannaḍa verbs (probably ten in all) that correspond to that section of the Tamil class I that has disyllabic stems ending in l (CVCVl) and past stems ending in ṉṟ (CVCVṉṟ), had their past stems remade from forms with a phonologically regular nd (*nṟ> Ka. *nd), which should have become d, to a morphologically more regular ld; e.g. agal, agald- 'to be extensive' (Ta. agal, aganṟ-) must originally have had a past stem *agand-. Only one of the verbs has corroborative evidence for the past stem in *nṟ in any other language than Tamil-Malayalam, viz. kaṛal, kaṛald- 'to slip off, drop down' (Ta. kaṛal, kaṛaṉṟ- 'to become loose, slip off'), with which we must now connect (in *DEDS*) Toda ka·l-, ka·d- 'to fall from height, fall from tree', in which d is from PSDr. *nṟ; Ka. kaṛald- must be a form that was regularized from *kaṛand-. (But it is conceivable, though not very probable, that these verbs had past stems of the form CVCVlnd-, in which nd>d.) From this nucleus of phonologically regular and simply analogical beginnings, -d- spread into still other subclasses. One was that which had basic stems ending in ḷ and past stems in *ṇḍ; *ṇḍ was replaced by ḷd, e.g. āḷ, āḷd- 'to possess, rule' (Ta. āḷ, āṇḍ-, To. o·ḷ-, o·ḍ-, Ko. a·ṇ-, a·ḍ-; but Koḍ. a·ḷ-, a·ḷi-). Especially noteworthy was the almost complete displacement of the -t- suffix by -d-; e.g. kaḍi, kaḍid- 'to bite' (Ta. kaḍi, kaḍit-, Koḍ. kaḍi-, kaḍic-; To. koṛy-, koṛc- 'to have desire to scratch'). This development may well have been the factor that determined that Kannaḍa should not share in the innovation whereby in the rest of SDr. the intransitive/transitive contrast was carried in a large class of verbs by the two past suffixes *-nd- and *-t-. If this is a correct guess, we may have a relative chron-

ology, viz. the reduction of the two suffixes took place in pre-Kannaḍa before the rest of SDr. innovated in the introduction of the intransitive/transitive contrast into the suffix pair *-nd-: *-t-. The voice structure for this section of the verbs in Kannaḍa is that seen elsewhere in its verb system, i.e. formations with -isu, -cu, etc., the transitive-causative suffix. Badaga has the same system, and it may be from Badaga that Kota, by its suffix -c-, made good its loss of the contrast in the same section of the system (a loss that came about for a different phonological-morphological reason than that responsible for the Kannaḍa situation).

It will have been noted, moreover, that in place of the past suffix *-i- of the other SDr. languages, Kannaḍa has -id- in the equivalent class, even in the oldest records. This can only be the older *-i- plus the spreading -d-. Sooner or later even -d- in many of its occurrences was displaced by -id-; e.g. agald- (discussed above as remade from *aganṟ>*agand-) later was remade as agalid-, āḷd- (<*āṇḍ) as āḷid-; another example is kēḷ 'to ask, hear', the past stem of which on the basis of the other SDr. languages is *kēṭ-, which is remade in Kannaḍa as kēḷd- and then later as kēḷid-. This Kannaḍa remaking of the system, by spread of the suffix -d- at the expense of -t-, by analogical addition of -d- to some stems which otherwise had morphologically less than obvious past stems, and by addition of -d- to -i-, is a far-reaching innovation shared by none of the other SDr. languages and separating Kannaḍa from all the others, as well as from the other Dravidian languages.

3.13. One very small subclass of verbs is of interest in that it provides an isogloss enclosing Kannaḍa and Koḍagu, which otherwise are unlike in the past tense system. Of the ten verbs in Kannaḍa that have a long vowel in S^1 and a short vowel in S^2, four have ṟ following the long vowel in S^1: ēṟ, bīṟ, āṟ, and kīṟ. In the past stems of these, three have -d- and one -t-; after the shortened vowel, ṟd/ṟt are in the historical development of the language replaced by dd/tt: ēṟ, eṟd-/edd-; bīṟ, biṟd-/bidd-; āṟ, aṟd-/add-; kīṟ, kiṟt-/kitt-.[17] Of these four verbs, Koḍagu has two; ë·ḷ-, ëdd- and bu·ḷ-, budd-, with phonetic correspondences to the Kannaḍa S^1 with long vowel, S^2 with short vowel, and the consonant morphophonemics (ṟ+d>dd).

The origin of the allomorphic combination of long and short vowel must be a contamination of paired paradigms with long and short vowel respectively, which were found in PSDr., or even in PDr., since some of the relevant evidence is found outside SDr. According to Krishnamurti's 1955 exposition (also in *TVB*) of the origin (from a root shaped $C\overline{V}C$) of the short vowel by reduction of the long vowel when there followed a derivative suffix beginning with a vowel, the original pairs must have been of the kind seen in Tamil vīṟ, vīṟnd- and viṟu, viṟund-, and the contamination produced *vīṟ, *viṟund- and the subsequent developments in Kannaḍa and Koḍagu. In this verb Toda and Kota have only the short-vowel forms, as do Telugu and Brahui; Tuḷu has only the long vowel (būr-); Kui-Kuwi presuppose the short vowel

in their metathesized forms vṛī- and brī-; Malayalam has only long-vowel forms (vīṟ-) except in one transitive derivative (viṟukka). The other verb that occurs in both Kannaḍa and Koḍagu, ēṟ etc., has short-vowel forms everywhere except for one derivative noun in Tamil ēṭci 'rising of a heavenly body', an honorific verb in Malayalam ēṟu- 'to rise (of a rāja's moving)', and a fairly certain Brahui transitive hēf- 'to raise' alongside harf- id.[18] For these two verbs, then, we may think of the phenomena in Kannaḍa and Koḍagu as a common innovation, and may draw an isogloss, even though the specific circumstances of the matter are quite unknown—borrowing, or common inheritance from an otherwise unlikely pre-Kannaḍa-Koḍagu grouping.

3.14. Koḍagu has gone its own way in innovation by drawing into the pattern of these two verbs three others. The one that is entirely equivalent structurally, ba·ḷ-, badd- 'to rule, (child) lives', has as strict parallels in the other languages only long-vowel forms, Ta. vāṟ, vāṟnd-, Ma. vāṟ-, Ka. bāṟ, bāṟd-, Tu. bāḷ-, except for To. poḍ-, poḍθ- 'to be priest of the ti· dairy' (*vaṟu-, *vaṟund-), which developed from a form with derivative suffix -u- and short vowel. Ko. vag-, vaṛt- '(woman) is married' seems parallel except that the past ending is -t-. Most of the languages have short-vowel forms with other derivative suffixes, commonly *-ud-uŋku;[19] e.g. Ka. barduṅku/barduku/baduku, Te. braduku, whence by borrowing Ko. vadk-, vadky-, To. poθk-, poθky-, Tu. baduk-, even Koḍ. badïk-, badïki-. It seems that there are two possibilities for badd- as past stem in the Koḍagu verb ba·ḷ-, badd-: (1) that it is directly analogous to bu·ḷ-, budd- and ë·ḷ-, ëdd-; (2) that in addition to this analogy there is contamination with the short-vowel forms of the type badïk-.

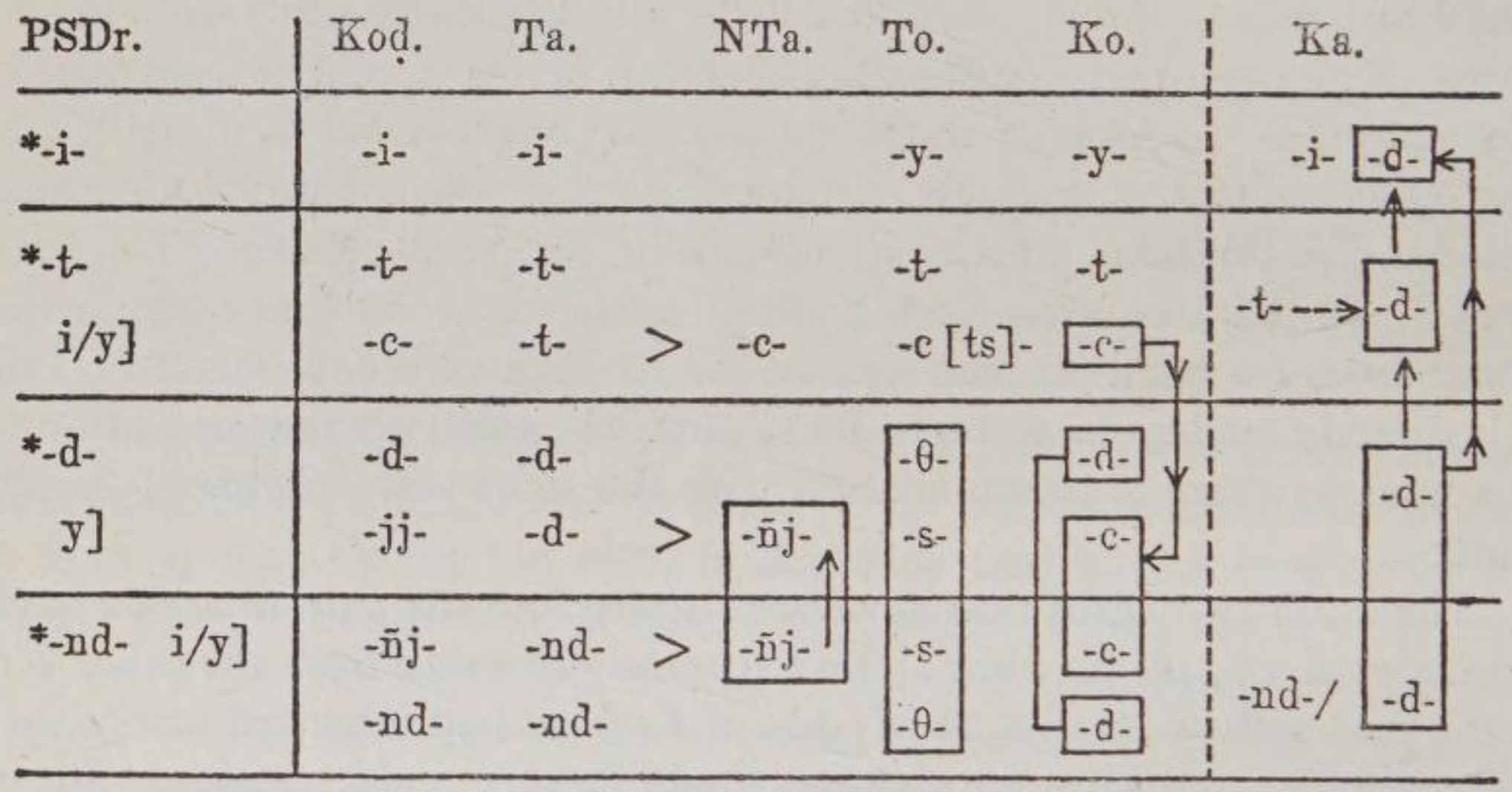
The other two verbs that have been drawn into the pattern are ca·ḷ-, cat- 'to die' and u·ḷ-, ut- 'to plow'. The structural difference from the other verbs is the past suffixal -t- instead of -dd-. If Koḍagu had inherited a cognate to Kannaḍa kīṟ, kiṟt-/kitt-, the solution would be very simple, analogy with this verb; as it is, the best we can do in this direction is to suggest that pre-Koḍagu may have had the verb (or even that Koḍagu still has it but that I failed to record it).

If we proceed without positing this verb, then we may say for ca·ḷ-, cat- that it is derived from pre-Koḍagu *cāy-, cat- (cf. Ka. sāy, satt-, Ta. cā, cet-) and that it was drawn into the pattern of bu·ḷ-, budd- because of what they have in common, viz. the alternation of vowel quantity and a dental suffix; the only change is replacement of y by ḷ. One other factor, that of meaning, may be mentioned: the 'fall' word, Koḍ. bu·ḷ-, budd-, has in the other languages (Ta. Ma. To. Ka. Tu. Te.) also the meaning 'die' (Tuḷu seems to have only this); even though I did not record this meaning for Koḍagu, I suspect that it exists there and this was an important point in the analogy.

For u·ḷ-, ut- 'to plow' it is to be remarked that some other languages have long-vowel forms, viz. Tuḷu and Gadba, and also Kui, for which *DEDS* will add ūṛa (ūṛi-) 'to dig with the snout, root up'. There is a good possibility,

then, that considering especially ūḍ- in the contiguous Tuḷu, we may posit that the Koḍagu verb is a contamination of two inherited paradigms based on *ūṟ- and *uṟ-u-, in the same way that bu·ḷ-, budd- and ë·ḷ-, ëdd- were. If this were ruled out, analogy would have to be invoked, but analogy to what? Why should it have affected this verb when it did not affect poḷ-, pot- 'to fight'? And yet, even this last verb owes its ḷ (cf. Ta. poru, porud-, Ka. pōr, pōrd-) as well as its -t- to contamination with the pattern of ï·ḷ-, ï·t- 'to drag' (cf. Ta. iṟu, iṟut-, To. i·ṣf-, i·ṣt-), pu·ḷ-, pu·t- 'to bury' (cf. Ka. pūṟ/hūṟ, pūṟt/hūt-, Ko. pug-, puṛt-), and o·ḷ-, o·t- 'to have sexual intercourse with' (cf. Ka. ō/ōv/ōḷ, ōt-).

3.15. A tabular statement (Tab. 1) of these morphological correspondences sums up and makes easily visible the relations that have been stated in the previous paragraphs. It makes especially vivid the unique Kannaḍa developments which differentiate it from the other SDr. languages, and at the same time emphasizes its membership in the southern group.



Tab. 1. The correspondences of the past tense morphs of SDr. Enclosure within boxes indicates merging through phonological change (To. Ko. Ka.), unless an arrow is included within the box (NTa.); for Ko. the two boxes containing -d- are joined by a line to indicate the same kind of merger. Arrows, whether within a box or joining boxes, indicate analogical spread of morphs; in Ka. the broken arrow indicates sporadic occurrence of analogic replacement.

3.16. As an appendix, we should discuss the problems connected with the verbs which in Tamil have stems ending in l or ḷ and past stems in which l and ḷ are replaced by ṉṟ and ṇḍ respectively, and the related verbs in the other languages. In 2.8 the statement is given for Tamil, that the suffix -nd- is used, along with morphophonemic statements l+nd>ṉṟ and ḷ+nd>ṇḍ. A parallel statement is given in 2.41 for the corresponding verbs of Kannaḍa (with some discussion also in 3.12) and in 2.35 for the corresponding verbs of Koḍagu.

However, for Tamil another statement has been used commonly, either

explicitly or implicitly, viz. using the suffix -d- and an allomorph of the stem with n and ṇ replacing l and ḷ respectively, e.g. kol, *kon-d- (with *nd>nṟ). This is the implication of putting these verbs in the Tamil class I as two subclasses, as Arden and Lisker do, or by grouping the subclasses of class I in a sequence of three as the *Tamil Lexicon* does. P.S. Subrahmanyam mentions both solutions (the 1963 thesis, §§2.83, 86, 88-9), without being certain which to adopt. My adoption of the longer suffixal form results from an overall decision to keep complexity of allomorphy as much as possible in the past suffixes and out of the basic stem, and a bias against admitting the morph -d- when it could be avoided. The decision does make for a slight economy in the overall description. In Toda this problem does not arise, since the nasal has been lost from both clusters *nṟ and *ṇḍ by historical phonological process. In Kota practically all the verbs have been remade.

The same problem arises in stating the morphology at the PSDr. stage. However, it should be noted that we have assumed tacitly that nd of the Kannaḍa and the Koḍagu past stems for the verbs ending in l (e.g. kond- from *kol-) must be derived from *nṟ, which is the necessary reconstruction for the other SDr. languages (*nṟ: Ta. ṉṟ, To. d̲). It would be possible, however, to posit for these two languages addition of -nd- to the l-stem and simplification of lnd to nd without the intervening alveolar cluster of PSDr. entering into this morphological situation at all. Whether the relative chronology involved would be feasible is not clear. But it seems that there is sufficient evidence outside of SDr. to make it plausible that *nṟ must be reconstructed for one of the l-verbs, which would argue for the validity of the reconstruction in the case of all the members of the small class both for PDr. and PSDr., including Kannaḍa and Koḍagu.

The only reasonably strong evidence that I can find for this reconstruction of *nṟ is that seen for the verb in *DED* 2286; Ta. cel, ceṉṟ- 'to go', etc., Ka. sal, sand-, Pa. cen-, cend-, Ga. sen-, seṇḍ-. This verb in some other languages of the CDr. group (Kui, Kuwi, Pengo, Manḍa) shows l, but no relevant past stem. Gondi has a basic stem in n (as Pa. and Ga. do), but no relevant past stem. Relevant to our problem is Te. canu, caṇṭ-. The probable history of this past stem, as of all Telugu past stems in ṇṭ of verbs of shape (C) V̆n-, is that the retroflex cluster derives either from the alveolar cluster *nṟ (as here and in tinu, tiṇṭ- 'to eat', anu, aṇṭ- 'to say') or from the retroflex *ṇḍ (as in kanu, kaṇṭ- 'to see', konu, koṇṭ- 'to hold, buy'), and that the expected voiced ḍ is replaced by voiceless ṭ by analogy with the voiceless (but dental) t in the past suffix -it- in the 1st and 2nd personal past forms of all other Telugu verbs. The n of the non-past stem canu may be a back-formation from caṇṭ-, parallel to kanu, which is in this respect a regular descendant of *kāṇ- (kaṇḍ-), tinu, etc.; or it may in fact be an inherited allomorph of *cal-. In any case Telugu caṇṭ- seems to make it highly probable that the reconstruction *cal-, *caṉṟ- is correct even outside SDr.[19a]

For inherited alternations of l and n, ḷ and ṇ, there is some evidence (e.g.

DED 2286, 3006, 3043 for the former, 1788, 3059 for the latter), but it would need detailed examination before it could be accepted as requiring us to analyse the past stems of the SDr. l and ḷ verbs as necessarily historically *CVn- and *CVṇ- plus past suffix -d-. All the relevant verbs must be examined historically in all detail before we can give certain answers to the problems presented by them.

4. *The Tamil and Koḍagu verb class with past suffix -nd- and future suffix -p-*

4.1. The Tamil verb class which is numbered VII by Arden (and Lisker) and 12 by the *Tamil Lexicon* is distinguished by its combination of past suffix -nd- and future suffix -p- (cf. 2.4). Otherwise in the verb classes the past suffix -nd- is combined with future -v-, and the future suffix -p- with past -t-.

4.2. The class is also distinguished in that most of its members (perhaps two dozen at most; e.g. naḍa- 'to walk') are of the shape CVCa, having as second vowel a, which is found in no other verb class. Arden's list contains several others, of which ēmā is very peculiar in its final ā (no etymology known); it is joined by aṇṇā (*DED* 96). His mō 'to smell' really represents three homophones: (1) 'to smell', (2) 'to take in a vessel (as liquid)', (3) 'to undertake'; beside (1) and (2) there occurs muka, of which mō is a contraction (*DED* 4000, 4001). Beside (3), which is *DED* 4211, there is no recorded muka, unless it be muka 'to lift, take up', which was included in *DED* 4001; however, it is possible that 4211 should be compared with 4070 Ta. muyal 'to practise, take pains, begin, undertake', etc., in which case mō would be a contraction of *muya. All examples of mō, then, would be contractions of the canonical form CVCa.

In addition to the stems ending in a, Arden rightly includes iru 'to exist, be, remain, sit down, live, belong to' (also used as auxiliary; *DED* 407), which has past stem irund-, future irup-. In spite of its irregularity as to canonical form (i.e. its vowel u), its conjugation type clearly puts it in this class.

4.3. This class occurs in Malayalam also, as is to be expected. Otherwise, it is found only in Koḍagu, where there occurs, e.g. naḍa- 'to walk', past naḍand-, future naḍap-. The Koḍagu verb list contains 14 verbs at the end of section (2). The last 13 verbs are of shape CVCa, and the first in this sub-list is co·- (co·p-, co·nd-) 'to become red' (*DED* 1607), which is a contraction of *cuva, seen in Malayalam cuvakka 'to be red' (Tamil cē [-p-, -nd-] is said by *Tamil Lexicon* to be a contraction of civa [-p-, -nd-]). In addition, there is listed in (2c) ir- 'to be in a place' (past iñj-, future ip-), in which r+past suffix nd>nd which is palatalized after i (see 2.35), and r+future suffix p>p.

4.4. The interpretation of this coincidence between the data in Tamil-Malayalam and in Koḍagu depends on whether there are parallel phenomena in any other language, and we now examine the data that seem pertinent.

4.5. Koḍagu itself shows another subclass in which the past stem is of the same shape as that of this class, i.e. CVCand-. In this subclass, however,

the basic stem ends, not in a, but in e, i.e. has the shape CVCe-, and the future has the suffix -v-, i.e. CVCev-. In Tamil this class is to be formulated as CVCay-, CVCay-v-, CVCay-nd-; it is distinguished from the other class, which is CVCa-, CVCa-p-, CVCa-nd-, both in stem-ending vowel and in future suffix. To make reference easy, we may call these the *ay-class and the *a-class respectively (see Table 2).

4.6. In the Nilgiris languages these two classes have fallen together completely, by loss of the vowel of the second syllable (and of y as well, probably through a development *ay>*e>zero), and by failure to show any differentiation in the future suffix. In Kota S^1 is stated as CVCv-, S^2 as CVCd- (*nd>d; see 3.6); e.g. naṛv-, naṛd- 'to walk'. In Toda S^1 is stated as CVC, S^2 as CVCθ- (*nd>θ; see 3.5); e.g. naṛ-, naṛθ- 'to walk'. Toda also has ïr-, ïθ- 'to sit, live', but Kota has remade the verb completely as ir-/ig, it- 'to exist, be in a place'.

4.7. In Kannaḍa the two classes are not differentiated, but show: (1) stems with e (<*ay) in all forms except those of the past, which have a alternating with è (see 2.40); (2) past suffix -d- (*nd>d; see 3.4); (3) future suffix -v-. So far, it is at least possible that the vowel a in the Kannaḍa past tense is the descendant of *a as seen in the Tamil-Malayalam and Koḍagu *a-class, having appeared by analogy in verbs of the *ay-class. Certainly, the alternative appearance of e in Kannaḍa verbs related to the *a-class is analogical. Since of the SDr. languages, neither Kannaḍa nor the Nilgiris subgroup shows any differentiating factor in this whole group of verbs which could lead to the split seen in Tamil-Malayalam and Koḍagu, it would seem that as a matter of method we must reconstruct the two subclasses for PSDr. and treat the Kannaḍa and Nilgiris situations as historical loss of differentiation (whether independent or not is uncertain). The Kannaḍa single structure, in fact, is most easily related to the two classes of Tamil-Malayalam and Koḍagu as a combination of features derived from the two classes: e from the *ay-class, a from the *a-class, -v- from the *ay-class, and -d- from both classes.[20]

4.8. This reconstruction of two classes within the SDr. subgroup is, pleasingly, borne out by the Tuḷu data (see table). Whatever Tuḷu's position may be *vis-à-vis* SDr. and/or CDr., its verb structure is on the whole so different from that of SDr. that any coincidence with SDr. that may be found can be used as support for an hypothesis or solution for SDr. detailed situations. And so it is here. A satisfyingly large number of cognates for the verbs of the *ay-class and the *a-class show two classes, with the items divided as is to be expected from the SDr. distribution.

Not only does Tuḷu show two classes, one with -p- in the dictionary entry and the other with y and/or v, but -p- of the first class coincides with the future suffix -p- of the *a-class, and -v- of the second class with the future suffix -v- of the *ay-class. We have, then, satisfactory evidence for two classes outside of SDr. as we have defined it in this paper. What else Tuḷu might yield does not yet appear.

Ta.	Koḍ.	Tu.	*DED*
	*a-class		
kaḍa (-p-, -nd-)	kaḍa (-p-, -nd-)	kaḍapuni	929
naḍa (-p-, -nd-)	naḍa- (-p-, -nd-)	naḍapuni	2957
muka (-p-, -nd-)	(Ka. moge [-v-, -d-])	magapuni	4001
para (-p-, -nd-)	para- (-p-, -nd)	parapuni	3255
maṛa (-p-, -nd-)	mara- (-p-, -nd-)	mad/rapuni	3897
tiṛa (-p-, -nd-)	tora- (-p-, -nd)	jappuni (?<*tṛap-)	2667
kala (-p-, -nd-)	kala- (-p-, -nd)	kalapuni	1092
aḷa (-p-, -nd-)	aḷa (-p-, -nd-)	aḷapuni, lappuni	252
	*ay-class		
kaḍay (-v-, -nd-)	kaḍe- (-ev-, -and-)	kaḍey/vuni	957
taḍay (-v-, -nd-)	taḍe- (-ev-, -and-)	taḍey/vuni	2460
uḍay (-v-, -nd-)	oḍe- (-ev-, -and-)	oḍeyuni	799
niṛay (-v-, -nd-)	nere- (-ev-, -and-)	ne/irevuni	3049
viḷay (-v-, -nd-)	boḷe- (-ev-, -and-)	buḷey/vuni	4464

Table 2. Non-past and past stans of a- / ay- ending verbs

4.9. Unfortunately, there is no further evidence for two classes in CDr. or NDr. Corresponding to the verbs in the *ay-class there are no etymologies outside of SDr. that show anything relevant. Two of the *a-class verbs have CDr. cognates with a suffix -p-. For kaḍa (929)[21] there is Parji kaḍp-, kaḍt- 'to cross', in which -t- is found in past and future and -p- elsewhere (e.g. present and imperative), and Kui gṛāp-, gṛāt- 'to cross', in which -t- is found in the past and -p- in the infinitive and the 'present verbal participle'. Beside tiṛa (2667) Kui has dāp-, dāt-. Though these languages have verb structures very different from those of SDr., and -t- in the past is so widespread that it is not to be expected that there should be an easy morphological correspondence for *-nd-, yet in Kui -p- of one verb class contrasts with zero, -v-, and -b- of three other classes. Likewise, in Parji -p- in one class contrasts with zero in other verbs. This contrast seems to be identifiable to some (but a still uncertain) degree with the contrast between -p- and -v- that we are dealing with in our SDr. classes, and consequently these two verbs seem to be guaranteed to have had *-p- in the future (or perhaps some other paradigm or combination of paradigms) in PDr.

4.10. The final result of this analysis is that Tamil-Malayalam and Koḍagu have the *a-class (with future -p- and past -nd-) in common, not as a shared innovation, but as a shared retention of a SDr. feature, which the Nilgiris

languages and Kannaḍa have lost, but which explains part of the Kannaḍa phenomena, and for which Tuḷu shows a parallel contrast of two classes. To go further seems impossible with any certainty, i.e. to decide whether this is a SDr. retention or an innovation. Much more morphological reconstruction will be necessary before this can be worked out.

4.11. One further note is possible. The verb ir- (407) that in SDr. has been amalgamated into this class shows in Tuḷu the -p- suffix that verbs of the *a-class show in the table: Ta. iru (-p-, -nd-); Koḍ ir- (ip-, iñj-); Tu. ippuni; *DED* 407. Tuḷu also shows in itt-, the past of this verb, the general past tense suffix -t- of Brigel's p/t class (e.g. maḷp-, maḷt-), with -p- in future and -t- in past; but in fact Brigel has no class with -p- in future- and -nd- in past, nor any past suffix -nd-. The suffix in itt- may possibly be secondary to SDr. -nd-. Indirect evidence for a past -nd- in this verb has been rightly found[22] in the Kui cognate verb rīnd- (past rīndi-) 'to be stable, stand firm, stand still', in which -nd- has become incorporated as part of the base. It seems clear even on this much evidence that this verb in PDr. had the suffixes -p- and -nd-.

5. *The position of Badaga*

5.1. Badaga has been taken to be a dialect of Kannaḍa for a considerable number of good reasons; e.g. initial *p->h- (which is otherwise found in Kannaḍa only); initial *v->b-; the alveolars *nr̲ and *r̲r̲ become dental nd and tt (e.g. tin-, past tind- 'to eat'; sutt- 'to wander about'); the verb ma·ḍ- 'to do, make', rather than gi·-, which means 'to work'; tumb- 'to become full', which is Kannaḍa and not Tamil-Malayalam; the causative suffix -is-; eraḍu 'two', mu·ru 'three', na·ku 'four', obba 'one man'; the verbs 'to pass' (929) and 'to churn' (957) are homophones (as in Kannaḍa) kaḍe-, past kaḍad- (see section 4); many other details of verb inflection.

On the other hand, in many respects, mostly matters of detail, Badaga is different from modern colloquial Kannaḍa, and in some respects from any recorded Kannaḍa. Several matters of the latter type can be presented.

5.2. It has been reported[23] that Badaga has two verbs glossable as 'to give', representatives of *koḍu when there is a 3rd person indirect object, and of *taru when there is a 1st or 2nd person indirect object. This is not reported for Kannaḍa at all, but is a trait of the Nilgiris languages, the Tolkāppiyam grammar of Tamil, Malayalam, and Koḍagu. My suggestion that Badaga has acquired this trait from the Nilgiris languages was based on a number of assumptions. One is that no other form of Kannaḍa shows the trait; in fact, our knowledge of Kannaḍa dialects is still far from definitive. Another assumption is that since Badaga is a comparatively modern type of Kannaḍa, later than the change of *p->h-, it could not possibly show a PSDr. trait that Kannaḍa itself does not show. In principle, this latter assumption is correct, but one must probably make the qualification that it is correct only if our knowledge of Kannaḍa and the traits of its dialects is

typologically not too defective. In other words, the first assumption just stated is in fact an important one.

5.3. The personal pronouns of Badaga are: 1sg. na·, oblique en-;[24] 1pl. exclusive eŋga, obl. eŋga-; 1pl. inclusive naŋga, obl. naŋga-; 2sg. ni·, obl. nin-; 2pl. (and sg. of respect) niŋga, obl. niŋga-. This is of course astounding for a Kannaḍa dialect, as is easily seen by inspection of Krishnamurti's 1967 paper on the Dravidian personal pronouns, supplemented for Kannaḍa by Gai's 1940 paper. In the later stages of Kannaḍa the exclusive-inclusive distinction in the 1st plural pronoun and in the verb has disappeared, but the 10th century work Pampa Bhārata still generally preserved it. There, ām, em- is exclusive (-em, -evu in verb forms); nāM, nam- is inclusive (-am in verb forms), though it is noted by Gai that the inclusive form is found only in the oblique cases. Gai's interpretation is that the obliteration of the distinction should be dated to the 10th century, and that it took place first in the nominative (only ām remaining in this case).[25] It should be added that in Badaga the verb does not show this distinction of exclusive and inclusive.

Since the pronouns that make the distinction are eŋga and naŋga, forms not found in Kannaḍa at all, we might combine this with the non-occurrence of the distinction in the verb, to arrive at the conclusion that Badaga shows a unique development, beginning from a stage of Kannaḍa when the distinction was quite lost, and achieving a new pronominal set. However, it would still be desirable to find an origin for the two pronominal forms. Tempting as it might be to suppose that the flourishing distinction in the Nilgiris languages had some influence in the reintroduction of the trait in Badaga, it is clear that the Nilgiris forms (To. em, om; Ko. ām, oblique em-, am-) cannot be the origin of the Badaga forms eŋga, naŋga, though it is possible that a stimulus diffusion from the Nilgiris languages triggered the Badaga reintroduction. Nor can we look to modern Tamil, where nāṅkaḷ, obl. eṅkaḷ- is exclusive (Badaga naŋga is inclusive) and the inclusive form is nām, obl. nam- (similarly Malayalam). The only one of the SDr. languages that has a set of forms like those of Badaga is Koḍagu, where eŋga and naŋga occur, but (unfortunately) as free variations of the 1st plural without the exclusive-inclusive distinction.[26] It might be possible to think of some connection between Badaga and Koḍagu, postulating that Koḍagu once had the distinction of meaning carried by the two forms but that it lost this under the influence of Kannaḍa in the last few centuries when such influence was politically strong.[27] Such a connection is not very attractive, in spite of the coincidence of the forms. The only other possibility that suggests itself for the origin of the Badaga forms is that the two oblique forms in 10th century Kannaḍa, i.e. exclusive em-, inclusive nam-, are the origin of Badaga exclusive eŋga, inclusive naŋga. The chronology would be uncertain, because of lack of old dialectal data for Kannaḍa, but we should have to postulate the Badaga development, and presumably migration to the Nilgiris as well, at a period centered around the 10th century, though possibly a little later if we assume

retention of the distinction, or at least of the two sets of forms, for some time after the Pampa Bhārata in the dialect area whence proto-Badaga migrated. This hypothesis would drive back the time of the Badaga split from Kannaḍa somewhat further than is usual; its only real virtue is the reason for making it at all, i.e. that it provides an origin for the Badaga forms.

5.4. In 1.5, and with some discussion in fn. 2, it was pointed out that a feature separating the rest of SDr. from Kannaḍa is the SDr. innovation, not shared by Kannaḍa, of a class of verbs with intransitive/transitive contrast carried by contrasting past suffixes *-nd- and *-t-. If such pairs of verbs occurred in Kannaḍa, they would have (with hardly a possible exception) contrasting suffixes -d- and -t- (the latter probably spelled -tt-); such pairs have not been found.

Since 1.5 was written, it has been found that Badaga has numerous examples of this type of formation of stems. The material is from the fieldnotes of Mr. Gérard Diffloth, with a very few items from my own.[28]

Several items from my material show almost enough forms to provide a skeleton of a model paradigm.

mare-/mara- '(tree) to be uprooted, fall' (3898)[29]

3sg. past	marad-a
3sg. neut. pres.-fut.	marad-ara
negative past	marav-ile
'it might...'	mare a·ku

id. 'to uproot, fell (tree)'

1sg. past	marat-e (also recorded as maratt-e)
1sg. pres.-fut.	marat-ane
negative past	marap-ile (? marapp-ile)
2sg. imperative	mare
'might...'	mare a·ku

oḍe /oḍa- 'to break' (799)

intransitive	transitive
oḍad-a	oḍat-e
oḍad-ara	oḍat-ane
oḍav-ile	oḍap-ile
	oḍe

bë·- '(seeds) to grow, (crops) to mature' (4464)[30]

bë·d-a	
bë·d-ara	
bë·v-ile	

id. 'to grow (crops)'

bë·t-e	
bë·t-ane	
bë·p-ile	
bë·	

Twenty-one other verbs were recorded by Diffloth; for each verb he supplied a past tense intransitive form, usually 3sg. ('it was ... ed'), and a 1sg. past transitive form ('I ... ed [it, him]').

agiduttu, agitte 'to get untied; to untie' (15)
araduttu, aratte 'to be ground; to grind' (191a)
iḍuduttu, iḍutte 'to break down; to break (tr.)' (366)
iguduttu, igutte 'to be extended; to pull' (427)
karaduttu, karatte 'to be dissolved, melted; to dissolve, melt' (1086)
kayiduttu, kayitte '(time) to pass; to spend (time)' (1142)[31]
koraduttu, koratte 'to diminish (intr.); to lessen (tr.)' (1537)
siguduttu, sigutte 'to be torn off; to tear off' (2056)
suladuttu, sulatte 'to be peeled; to peel' (2336)
tavirduttu, tavirtte 'to be hindered; to hinder, avoid' (2539)
nanade, nanatte 'I got wet; I made it wet' (3006)
hariduttu, haritte 'to be torn; to tear' (3317)
hiriduttu, hiritte 'to be dismantled; to dismantle' (3435)
hogaduttu, hogatte 'to smoke (intr.); to make smoke' (3483)
maraduttu, maratte 'to disappear; to conceal' (3897)
muruduttu, murutte 'to be broken; to break' (4109)
baḍiduttu, baḍitte 'to be spilled; to spill' (4269)
baruduttu, barutte 'to be fried; to fry' (4360)
ūduttu, ūtte 'to be buried; to bury' (650)
sēde, sētte 'I joined (a group); I joined someone (to a group)' (2312)
nīduttu, nītte 'to be woven; to weave' (3103)

Analysis of coincidences and differences between Badaga and other languages in the structure of these verbs shows that Badaga does not agree with any of the other languages in detail. It shows least agreement with Kannaḍa in the point in which we are interested, and also little agreement with Kota, because of the Kota merger of *-t- and *-nd- after Kota y (3.9). Otherwise, (a) 13 of the Badaga verbs have the same stem formative as the corresponding Kannaḍa verb; (b) 7 have a different stem formative. Nine of the Ka. verbs are intransitive only (6 under a: 1537, 2312, 3006, 3483, 4269, 4464; 3 under b: 15, 366, 1086), 4 are transitive only (3 under a: 191a, 427, 3103; 1 under b: 2336), and 7 are both intransitive and transitive (4 under a: 799, 1142, 3317, 3435; 3 under b: 650, 2056, 4109). Two of the verbs occur in Ka. with the same formative, but not with the shade of meaning found in Badaga (3897, 3898). Two of the Badaga verbs are not represented in Ka. in any form (2539, 4360).

Comparison with Toda shows that 6 of the Badaga verbs are not found in Toda (15, 2056, 2336, 2539, 3483, 4109), and 2 do not have the same meaning (191a, 3897). Nine verbs have the same stem formative in the two languages,[32] 4 of them having both forms in Toda (799, 2312, 3435, 4464), 2 of them having only the intransitive form (1142, 1537), 2 having only the transitive form

(3103, 4360), and 1 having the transitive form with both meanings (3317). Seven verbs have a different stem formative in the two languages, (366, 427, 650, 1086, 3006, 3898, 4269; in 4269 [or 849] *DEDS* adds To. waṛf- [waṛt-] '[blood] flows').

There is more agreement with Tamil than with any of the other languages, since 16 of the verbs have both stems and the same stem formative in the two languages (15, 191a, 799, 1086, 1142, 1537, 2312, 2539, 3006, 3317, 3435, 3483, 3897, 4269, 4360, 4464). But even so, there is disagreement, 3 verbs having different stem formatives in the two languages (366, 650, 4109), 3 verbs being transitive only in Tamil (427, 2336, 3103), 1 verb not having the same stem formative or the proper meaning (3898), and 1 verb not being found in Tamil at all (2056).

This wide-spreading disagreement in detail with the other languages must mean that the Badaga system is an independent formation in its details. The simplest hypothesis, since inheritance from pre-Kannaḍa seems to be ruled out (and inheritance from any period within the Kannaḍa record is impossible), is that on the basis of a Kannaḍa-like intransitive/transitive system, which did not have the -d-/-t- contrast, and under the stimulus of neighboring languages, i.e. Toda and Kota (insofar as the latter had not lost this contrast), Badaga went its own way in building up the -d-/-t- contrast (note that -d- is derived from Kannaḍa -d-, which results from *-nd-). It led to numerous coincidences with the details of the system of the SDr. languages (minus Kannaḍa), but it also led to divergences and even to such anomalies as nīd- 'to be woven': nītt- 'to weave' (3103), when no other language had anything but *ney- (ney-d-) with transitive meaning.

5.5. The unsettling material of 5.3 and 5.4 may well be joined by more of the same nature when we have more data on the language. Meanwhile, it seems still possible to save the position of Badaga as a dialectal offshoot of Kannaḍa by invoking varying combinations of diffusion and original innovation (as I have done in 5.3 and 5.4). Certainly there is time enough for considerable change to have taken place in the language, since we know from Father Finicio's 1603 letter[33] that the Badagas were in the Nilgiris then. Moreover, they seem to have had relations with the Todas of the same kind that we know from 19th and 20th century accounts—which argues that they were in the Nilgiris earlier than the beginning of the 17th century, perhaps even much earlier. Interestingly enough, Father Finicio writes twice that the language of the Badagas was "Canara".

Further than this it seems impossible to go at the moment in settling the numerous difficulties connected with Badaga. Elsewhere in the paper, especially in 1.8 and 1.14, it has had to be assumed that Badaga can be treated as what it *prima facie* is, a dialectal offshoot of Kannaḍa which presents many divergences from the latter. Again, it is necessary to stress that the lack of detailed descriptive work on Badaga makes much of the work on the Nilgiris languages in a sense premature.

APPENDIX

Verb lists of Toda, Kota, and Koḍagu[34]

In each language list the verbs are identified by S^1 and S^2 forms and are grouped by classes according to the schemata set out in section 2. Within the classes the verbs are arranged by the final phonemes of S^1, in general in the order given in the description in section 2. The numbers in parentheses are those of the entries in *DED* or *DBIA* in which the verbs are found (*DED* unless specified as *DBIA*); some of the assignments to *DED* entries are those which will appear in the forthcoming *DEDS*, including those with prefixed S (for 'supplementary number').

In the Koḍagu list (after class 1) three stems are given to identify each verb, viz. S^1, then the present-future stem, and then the past stem (S^2), even though the classes in the present-future have been analysed in this paper only in part.

TODA

(1) $S^2 = S^1 + y$

sop-, sopy- suck (1927)
top-, topy- postpone, fail to come (2498)
up-, upy- be pleased, agree (781)
ki·p-/kü·p-, ki·py-/kü·py- kill buffalo at funeral
warp-, warpy- refuse to do something (559)
tïrp-, tïrpy- turn (key) (2655)
ürp-, ürpy- play (flute) (578)
kasp-, kaspy- break rules of the sacred dairies (916)
a̲sp-, a̲spy- clean (208)

nob-, noby-, trust, believe (2975)
ub-, uby-, boil over (573)
kub-, kuby- shout (1551)
tüb-, tüby- sneeze (2740)
tïrb-, tïrby- twist (tr.) (2655)
toḷb-, toḷby- slop over (2764)

ni·f-, ni·fy- stroke (3058)
kuf-, kufy- pound (clothes in washing), load (powder into gun) (1536)
tu·f , tu·fy- spread (grain) (2791)

kum-, kumy- pound (grain) with light strokes (1536)

pït-, pïty- sow (4428)
wït-, wïty- increase (rain, wind) (*DBIA* 44)
kot-, koty- light; burn, glitter, flash (1014)

e·mo·t-, e·mo·ty- deceive (760)
mo·t-, mo·ty- change (clothes) (3960)
po·t-, po·ty- spread (mat) (3363)
öt-, öty- climb (3320)
köt-, köty- smooth (plank) (1624)
sö·t-, sö·ty- make to join with others (2312)
ut-, uty- increase (*DBIA* 44)
kut-, kuty- pierce, sew (1429)
mut-, muty- become strong, hard (4117)
mu·t-, mu·ty- smell (tr.) (4000)
pint-, pinty- ask (4472)
naḍt-, naḍty- organize, conduct (2957)
part-, party- pray (3257)
eṟt-, eṟty- overcome in contest, outstrip (438)
ojuṟt, ojuṟty- terrify (51)
kaṛt-, kaṛty- send, take across (929)
naṛt-, naṛty- make to walk, string (beads) (2957)
öṛt-, öṛty- rouse (723)
mo·št-, mo·šty- be in rut (3852)
öšt-, öšty- tell (3298, 3629)
kö·št-, kö·šty- lean (tr.) (1674)
tö·št-, tö·šty- close (the ti· dairy) (2597)
ušt-, ušty- appear (566); take off (ring, bangle, shirt or coat, sari) (561)
kušt-, kušty- build with stone (1430)
ïṣt-, ïṣty- seat, keep in a place (407)
tïṣt-, tïṣty- correct (crookedness of stick) (2659)

ked-, kedy- be stuck in; fix in position (1648)
ni·d-, ni·dy- swim (3054)
kïd-, kïdy- sprinkle (1294)
tïd-, tïdy- make straight (2659)
ud-, udy- jostle (536); smear on body (572)
kud-, kudy- hit with fist, box (1536)

i·θ-, i·θy- pull, drag (461)
wïθ-, wïθy- slip (waistcloth, etc.) (526)
wï·θ-, wï·θy- read (886)
ko·θ-, ko·θy- make noise
poḍθ-, poḍθy- enjoy (4402)
poṇθ-, poṇθy- talk in assembly (3212)
arθ-, arθy- sharpen (191)

paṯ-, paṯy- seize, touch, marry (woman) (3320)
kefaṯ-, kefaṯy- eat
ka·ṯ-, ka·ṯy- make fall from tree, pluck (1136)
eṭ-, eṭy- raise (776)

-eṯ-, -eṯy- (mediative-causative suffix added to S[1]); ox eṯ- (eṯy-) make broad (731)

teṯ-, teṯy- leisure is (2831)

aṟy(n)beṯ-, aṟy(n)beṯy-, become insane (265, 4536)

te·ṯ-, te·ṯy- fold (leaf for drinking cup) (2836)

i·ṯ-, i·ṯy- (goddess) brings forth child; (god) makes buffalo bear (calf) (473)

wï·ṯ-, wï·ṯy drive calf from udder (877)

twï·ṯ-, twï·ṯy- be foreseen (2942)

toṯ-, toṯy- slap (2561); tell quarrel to one who will give judgment

üsoṯ-, üsoṯy- refuse

o·ṯ-, o·ṯy- dry (tr.) in heat (346)

mo·ṯ-, mo·ṯy- change (way, path) (3960)

no·ṯ-, no·ṯy- make to get wet in rain (3006)

po·ṯ-, po·ṯy- teach young to fly (3311)

tö·ṯ-, tö·ṯy- make to improve (in health or wealth) (2856)

u·ṯ-, u·ṯy- drain, filter (648)

tüṯ-, tüṯy- wind (tr.), wander about (2238)

yu·xuḏ-, yu·xuḏy- be in comfortable circumstances, enjoy life

pïn-, pïny- (hair) is matted; weave (basket) (3454)

pe·ṯ-, pe·ṯy- frighten away (buffalo) (4519)

kiṭ-, kiṯy- be caught (1287)

ni·ṭ-, ni·ṭy- stretch out (hand) (3059)

pïṭ-, pïṯy- burst (3674); (hand) blisters by friction (3679)

swïṭ-, swïṯy- drop (of liquid; intr., tr.) (2324)

kiskwïṭ-, kiskwïṯy- tickle (tr.) (1274)

nwï·ṭ-, nwï·ṭy- look at (3144)

pï·ṭ-, pï·ṭy- make tumble over (3516)

oṭ-, oṯy- pour (87)

koṭ-, koṯy- tie, build, manage (house) (961)

toṭ-, toṯy- strike, pat (2466); tell quarrel to one who will give judgment

nesoṭ-, nesoṯy- put to forehead in salutation (69a)

twīṟkoṭ-, twīṟkoṯy- become numb

o·ṭ-, o·ṭy- weep, embroider, shake violently (290)

ko·ṭ-, ko·ṯy- show (1209)

mo·ṭ-, mo·ṭy- put fuel on fire (3935)

po·ṭ-, po·ṭy- shout (3348)

to·ṭ-, to·ṭy- cross (boundary, etc.) (2578); bring up (child), take as concubine (2865)

möṭ-, möṯy- trample on (4150)

uṭ-, uṯy- be born (3501); turn earth with cane at funeral (571)

kuṭ-, kuṯy- knock, pound (1391)

muṭ-, muṯy- outstrip (4041); touch (corpse at funeral) (4043)

puṭ-, puṯy- grow (3501); stick (intr.)

u·ṭ-, u·ṭy- roll (tr.) (571)
pïṣ u·ṭ-, pïṣ u·ṭy- turn earth with cane at funeral (571)
ku·ṭ-, ku·ṭy- gather (tr.) (1562)
mu·ku·ṭ-, mu·ku·ṭy- make to meet (1562)
pu·ṭ-, pu·ṭy- tie around someone else's neck (3577)
tu·ṭ-, tu·ṭy- roll up (2211)

ïḍ-, ïḍy- limp (371)
wï·ḍ-, wï·ḍy- run (877); trick
moḍ-, moḍy- (buffalo) allows calf to suck (3807)
toḍ-, toḍy- have ability or strength to (2482)
o·ḍ-, o·ḍy- move violently, dance (290)
mo·ḍ-, mo·ḍy- make (oath) (3931)
köḍ-, köḍy- flay (1290)
pö·ḍ-, pö·ḍy- beg (4548)
ku·ḍ-, ku·ḍy- (other than Todas) marry (1562)

no·ṇ-, no·ṇy- be ashamed, by shy (3014)
po·ṇ-, po·ṇy- shave (3761)
öṇ-, öṇy- count (678)

kak-, kaky- vomit (909)
pa·k-, pa·ky- abuse (3297); turn inside out
wa·k-, wa·ky- turn over (tr.), tell the whole truth
mik-, miky- be left over, remain (3962)
tik-, tiky- be trapped (2060); be sprained (2227)
i·k-, i·ky- put down (burden) (426)
ni·k-, ni·ky- brush away (3052)
pi·k-, pi·ky- tell lie (3702)
pïk-, pïky- cough (4412)
wïk-, wïky- (bullocks) go round in threshing (784)
tï·k-, tï·ky- stop (tr., man, animal) (2654)
wï·k-, wï·ky- aim (870)
ne·ṯwï·k-, ne·ṯwï·ky- toll bell (3046, 2777)
nok-, noky- lick (2945)
tok-, toky- last long (2443)
o·k-, o·ky- place (282)
po·k-, po·ky- empty out completely (4370)
so·k-, so·ky- rear (2003)
to·k-, to·ky- shout with anger; touch (sacred bell, of one who should not do so) (2570)
pe·fo·k-, pe·fo·ky- crouch for a spring (4553)
ök-, öky- scratch oneself (652)
kök-, köky- (buffalo) scratches itself (1305)
tö·k-, tö·ky- belch (2841)
muk-, muky- hesitate, strain (4010)

u·k-, u·ky- make to glide along (426)
mu·k-, mu·ky- destroy (4096)
tu·k-, tu·ky- hang (tr.), lift up (2777)
omk-, omky- press down (143)
pïθk-, pïθky- squeeze (3426)
wïθk-, wïθky- get ready (tr.) (522)
kwïθk-, kwïθky- sting, peck (1740)
twïθk-, twïθky- start, begin (2754)
poθk-, poθky- prosper (4402)
toθk-, toθky- squeeze or smash flat (1916)
öθk-, öθky- jump (684)
onk-, onky- drizzle (3322)
kwïṭk-, kwïṭky- tap (1717)
moḍk-, moḍky- defeat in argument (3796)
wïṇk-, wïṇky- wither, dry (tr.) (517)
ark-, arky- chip, cut square (175); subdue (184)
kark-, karky- melt, dissolve (tr.) (1086)
tïrk-, tïrky- turn (tr.) (2655)
waṟk-, waṟky- make to sleep (606)
peṟk-, peṟky- pick up small objects (3623)
iṟk-, iṟky- swallow (439)
piṟk-, piṟky- finish (work) (4471)
kuṟk-, kuṟky- shorten (tr.) (1537)
muṟk-, muṟky- be on bad terms (4111)
wïṛk-, wïṛky- crush, beat black and blue (804); do embroidery pattern (851)
oṛk-, oṛky- pile, subdue (56)
moṛk-, moṛky- fold, bend (tr.) (3796)
nöṛk-, nöṛky- lengthen (tr.) (3099)
töṛk-, töṛky- search for (2844)
alk-, alky- shake (tr.) (203)
kalk-, kalky- stir up (1096)
twalk-, twalky- make to be out of plumb (2900)
kilk-, kilky- neigh (1311)
pöɬk-, pöɬky- make to dawn (4524)
muḷk-, muḷky- destroy (4096)
misk-, misky- move slightly vertically (tr.) (3964)
usk-, usky- move slightly horizontally (tr.) (494)
mesk-, mesky- soak (tr.) (4167)
pi·s̄k-, pi·s̄ky- kill (animal) (4457)
möš̄k-, möš̄ky- smear dung on (4169)
puṣk-, puṣky- boil (potatoes) (3540)

pa·g-, pa·gy- fall (4371); use (things, path) (4402)
wa·g-, wa·gy- turn over (intr.), stir

eg-, egy- contract the stomach (661); disperse (intr.)
teg-, tegy- fasten loincloth (2285)
pïg-, pïgy- (hand) gets blistered by friction (3648); bubble up, (stomach) swells (3658)
tog-, togy- be humbled, have dent made in itself (2597)
to·g-, to·gy- support (burden), be stuck in branch, delay (2573)
nug-, nugy- gulp down (3064)
omg-, omgy- be pressed down (143)
wïḍg-, wïḍgy- be crushed (804)
oḍg-, oḍgy- be piled in order (56); take a rest (346)
wïṇg-, wïṇgy- be scorched by sun (517)

pex-, pexy- become stout (3613)
i·x-, i·xy- descend (426)
ni·x-, ni·xy- crawl, (river) runs in flood (3052)
ïx-, ïxy- slip, be slippery (426)
ox-, oxy- be burnt to ashes (*DBIA* 5)
po·x-, po·xy- flow down completely (4370)
to·x-, to·xy- become lean, slender (2608)
ö·x-, ö·xy- utter scream (peacock, shaman) (746)
u·x-, u·xy- glide along, slip through hands (426)
ku·x-, ku·xy- crow (1551)
mu·x-, mu·xy- be destroyed, drown (4096)
tu·x-, tu·xy- hang (intr.) (2777)
omx-, omxy- be pressed down (143)
pïθx-, pïθxy- be squeezed (3426)
wïθx-, wïθxy- get ready (intr.), be of use (522)
twïθx-, twïθxy- be at point of readiness (2754)
toθx-, toθxy- be squeezed or smashed flat (1916)
noḏx-, noḏxy- tremble (2960)
moḍx-, moḍxy- keep lover (other than Todas) (3795)
kuḍx-, kuḍxy- make stamping noise, buzz (1382)
wïṇx-, wïṇxy- wither (intr.) (517)
arx-, arxy- be subdued (184)
karx-, karxy- melt, dissolve (intr.) (1086)
tïrx-, tïrxy- turn (intr.) (2655)
waṟx-, waṟxy- sleep (606)
piṟx-, piṟxy- be finished (4471)
kuṟx-, kuṟxy- be short (1537)
muṟx-, muṟxy- growl (4113)
moṛx-, moṛxy- bend (intr.) (3796)
nöṛx-, nöṛxy- become tall (3099)
alx-, alxy- shake (intr.) (203)
twalx-, twalxy- be out of plumb, (coagulant) is polluted (2900)

kalx-, kalxy- be stirred up (1096)
pöṯx-, pöṯxy- dawn (4524)
muḷx-, muḷxy- be destroyed (4096)
misx-, misxy- pollute dairy by transgressing rules (3962); move slightly vertically (intr.) (3964)
usx-, usxy- move slightly horizontally (intr.) (494)
mesx-, mesxy- become soaked (4167)

ti·r-, ti·ry- (dispute) is settled, settle (dispute) (2683)
o·r-, o·ry- (dispute) is settled (346)
wï·r-, wï·ry- emulate (3708)

ki·r-, ki·ry- tear (1353)
mi·r-, mi·ry- become uncontrollable (3998)
pi·r-, pi·ry- scatter, shed (tears) in profusion (4492)
twï·r-, twï·ry- be visible, foreseen (2942)
o·r-, o·ry- become dry by heating (346)
mo·r-, mo·ry- change (intr.) (3960)
po·r-, po·ry- fly (3311)
ö·r-, ö·ry- rise high (776)
kö·r-, kö·ry- winnow (1679)
tö·r-, tö·ry- improve (in health or wealth) (2856)
mu·kur-, mu·kury- (ceremony) approaches (4129)
u·r-, u·ry- spring forth, be filtered (648); stick (tr.) in ground (650)

mi·ṛ-/me·ṛ-, mi·ṛy-/me·ṛy- drive (buffaloes) on migration (S791)
ni·ṛ-, ni·ṛy- be stretched out (hand) (3059)
twï·ṛ-, twï·ṛy- dig with fingers (2927)
oṛ-, oṛy- weep (240)
po·ṛ-, po·ṛy- sing (a special type of song called po·ṭ) (3348)
nöṛ-, nöṛy- be tall (3099)
ku·ṛ-, ku·ṛy- join (intr.), finish doing (1562)
tu·ṛ-, tu·ṛy- shrink (2213)
mu·ku·ṛ-, mu·ku·ṛy- (persons, rivers) meet (1562)

toḷ-, toḷy- push (2559)

ni·s-, ni·sy- swim (3054)
pi·s-, pi·sy- swing, abandon (4479)
ku·s-, ku·sy- be heaped up (1558)
tu·s-, tu·sy- become useless, damaged, (woman) is not married (2693)
tops-, topsy- fail to do (2498); make to escape (2498)

na·s-, na·sy- play (2988)
üs-, üsy- long for (846)

(1a) $S^1c+y>S^2č$
ic-/ec-, ič-/eč- (family) increases (3613)
mic-, mič- flash, lighten (3994)

nic-, nič- darn, spin (3103)
ki·c-, ki·č- comb (1341); scrape (1343)
mi·c-, mi·č- make to graze (4179)
ïc-, ïč- reach, be sufficient (693)
kwïc-, kwïč- chop up (1544); winnow (1782)
koc-, koč- bite (920)
toc-, toč- beat (1916, 2518)
aṛoc-, aṛoč- make orphan calf suck another buffalo
ko·c-, ko·č- boil (tr.), heat (1219)
po·c-, po·č- (dress, etc.) suits (3343)
kalko·c-, kalko·č- season (kalk- mix+ko·c- boil)
u·c-, u·č- throw away (dirty water) (480); (buffalo) has diarrhoea (576)
pu·c-, pu·č- put (garment) on someone else (3577)
müc-, müč- cover (4025)
topc-, topč- escape, deliver from danger (2498)
upc-, upč- hand over (781)
kofc-, kofč- be in great numbers (1024)
ufc-, ufč- hand over (781)
monc-, monč- forgive (*DBIA* 291)
naḍc-, naḍč- organize, conduct (2957)
iḍc-, iḍč- set fire (375)
koḍc-, koḍč- make to disappear (1142)
o·ḍc-, o·ḍč- make to dance (290)
köḍc-, köḍč- destroy, kill by witchcraft (1614)
toṇc-, toṇč- make cool, calm (2473)
kakc-, kakč- make to vomit (909); take off (hinges of box) (1136)
mixc-, mixč- save, put by (3962)
pïxc-, pïxč- tighten (4411)
mu·xc-, mu·xč- be deep; destroy (4096)
poθerc-, poθerč- appoint, arrange
ti·rc-, ti·rč- finish (2683)
tïrc-, tïrč- separate (tr.) (2815): translate (2655)
o·rc-, o·rč- settle (dispute) (346)
sö·rc-, sö·rč- bring to destination, cause to join with oneself, collect (2312)
pürc-, pürč- fill (tr.) (*DBIA* 275)
kiṟc-, kiṟč- shout (1323)
o·ṟc-, o·ṟč- reopen settlement because it was unjust (346); throw in air and catch (3311)
ö·ṟc-, ö·ṟč- make high (776)
pïṛc-, pïṛč- make spring forth, open (boil) (3668); drive away (4419)
o·poṛc-, o·poṛč- catch (888)
köṛc-, köṛč- extinguish, kill (1614)
töḍxöṛc-, töḍxöṛč- make tired
kalc-, kalč- teach (1090)

talc-, talč- inform (2286)
kelc-, kelč- be successful (1641)
nilc-, nilč- make to stand (3043)
twï·lc-, twï·lč- defeat (2936)
poḷc-, poḷč- live, get on in life (4402, 4430)
tüḷc-, tüḷč- calm (2825)

(1b) $S^1ź+y>S^2j$
ni·ẓ-, ni·j- swim (3054)
pe·fïẓ-, pe·fïj- crouch for a spring (4553)
kwïẓ-, kwïj- ridicule (1697)
oẓ-, oj- fear (51)
mo·ẓ-, mo·j- hide (secret, news) (3946)
pu·ẓ-, pu·j- do worship at temple (*DBIA* 274)
pïḍẓ, pïḍj- get released (4419)
pe·ḷẓ-, pe·ḷj- crouch for a spring (4553); quiet (buffaloes)
kwïḍẓ-, kwïḍj- frisk (1547)

(2) $S^2=S^1+\theta$
kof-, kofθ- be turned upside down (1121)
tof-, tofθ- go on all fours (2535)
uf-, ufθ- fall down (flowers, fruit) (426)
kwan-, kwanθ- work slowly wasting time
nen-, nenθ- think of (3050)
aḍ-, aḍθ- dig (12)
kaḍ-, kaḍθ- leave, pass, cross (929)
naḍ-, naḍθ- happen (2957)
waḍ-, waḍθ- beat drum (3493)
kwaḍ-, kwaḍθ- rot (1514)
twaḍ-, twaḍθ- be polluted (2865)
pïḍ-, pïḍθ- fall, (animal) dies (4457)
mï·ḍ-, mï·ḍθ- look fiercely (4164)
poḍ-, poḍθ- be priest of ti· dairy, prosper (4402)
püṣoḍ-, püṣoḍθ- call
öḍ-, öḍθ- rise (723)
ku·ḍ-, ku·ḍθ- bend down (1458)
pax-, paxθ- be divided (3154)
ïx-, ïxθ- separate oneself from others (352)
tïx-, tïxθ- take to heels (2621)
mux-, muxθ- (one's days) are numbered, finished (4005)
koy mux-, koy muxθ- salute (4007)
kar-, karθ- steal (1054); bellow (1085)
par-, parθ- write (4304); open wide (an entrance; 3255)
kwar-, kwarθ- be cold (1802)
twar-, twarθ- (buffalo) is ready for milking (2353)

er, erθ- be very bright (694); sit in rows, walk in single file (3042)
ner-, nerθ- go in a line (3042)
ar̲-, ar̲θ- be fatigued (346); get lost in crowd, wander
kar̲-, kar̲θ- milk, give milk (1166); become tight (1177)
mar̲-, mar̲θ- forget (3897)
tar̲-, tar̲θ- get stuck (2564); (head) becomes bald (2566)
kwar̲-, kwar̲θ- be reduced in size or esteem (1537); feel cold (1802)
twar̲-, twar̲θ- become on bad terms (2768)
er̲-, er̲θ- scoop up (water with vessel) (735)
ner̲-, ner̲θ- be full (3049)
ter̲-, ter̲θ- open (tr.) (2667)
ir̲-, ir̲θ- hit with weapon (731)
ïr̲-, ïr̲θ- drink (intoxicants) (2235)
mur̲-, mur̲θ- have dispute, become angry (4111)
kaṛ-, kaṛθ- churn (957)
naṛ-, naṛθ- walk, happen (2957)
waṛ-, waṛθ- be broken in pieces (799)
kwal-, kwalθ- become emaciated (1501)
twal-, twalθ- be settled and finished with (2900)
aṯ-, aṯθ- measure (252)
paṯ-, paṯθ- bend down (4349)
peṯ-, peṯθ- grow (fat), (food plants) grow (4464)
nes-, nesθ- weave (3103)
kis-, kisθ- crow (1311)
n̄is̄-, n̄is̄θ- make fire with firesticks (2390)

(2a) $S^1y+\theta>S^2s$
pe·y-, pe·s- thatch (4552)
mi·y-, mi·s- graze (intr.) (4179)
ti·y-, ti·s- be singed (2672)
ïy-, ïs- know how to (692)
kïy-, kïs- do, make (1628)
pïy-, pïs- beat (3704); wrap up (someone) (S717)
kwïy-, kwïs- pluck, (bee) sucks (1763)
ni·xoy-, ni·xos- be thirsty (ni·r water + ko·y-)
ko·y-, ko·s- be hot, boil, bask in sun (1219)
to·y-, to·s- be lowered (2597)
üy-, üs- chase (831)
tüy-, tüs- breathe heavily (2894)
ofy-, ofs- calm down (intr.) (226)
kofy-, kofs- surround in great numbers or on all sides (people, fire) (1024)
köfy-, köfs- have piece broken off (1129)
kud̲y-, kud̲s- have a shallow hollow (1383)
pony-, pons- (place) is full of fever (3322)

wïḍy-, wïḍs- be separated from, leave behind (848)
oḍy-, oḍs- be spent (235)
koḍy-, koḍs- disappear (1142)
tuḍy-, tuḍs- lounge, move in a circle (2223)
toṇy-, toṇs- become damp, cool, calm (2473)
nïxy-, nïxs- move slightly on base (2383)
pïxy-, pïxs- become tight (4411)
oxy-, oxs- chew (13)
kary-, kars- be singed, scorched (1073)
pïry-, pïrs- be demolished (3435); be parted, opened (4438)
tïry-, tïrs- choose (2815)
müry-, mürs- be broken in two (4078)
püry-, pürs- disappear from sight, (sun) sets (3435); become full (*DBIA* 275)
aṟy-, aṟs- know (265)
kaṟy-, kaṟs- laugh (1172)
maṟy-, maṟs- fall, fall out (teeth) (3898)
paṟy-, paṟs- be possible (3191); (child) dies (4359)
eṟy-, eṟs- throw, cut (731)
pïṟy-, pïṟs- be used up, decrease (4471)
müry fuṟy-, müry fuṟs- stretch in yawning (4080)
piṟy-, piṟs- (eye) is blind (S682)
ïṟy-, ïṟs- fall down (house) (366)
pïṟy- pïṟs- break forth, spring forth, (boil) breaks (3668)
wïṟy-, wïṟs- (joints) crack (799)
moṟy-, moṟs- have foot and mouth disease (3796)
paly-, pals- become strong (4317)
talfaly-, talfals- reach age when one can distinguish (tal head+paly-)
tüḷy-, tüḷs- become clear, calm (2825)
müṯy-, müṯs- be dry (4099)

(2b) $S^1r+\theta > S^2\theta$
ïr-, ïθ- sit (407)
o·r-, o·θ- dash against, attack (3708)
pi·ṟfor-, pi·ṟfoθ- love, kiss (4313)
po·r-, po·θ- it pains (4313)
kö·r-, kö·θ- lean against (intr.) (1674)
u·r-, u·θ- disappear, be lost (556)

(3) $S^2 = S^1+t$
af-, aft- pound with light strokes (1976)
paf-, paft- kick
kof-, koft- turn upside down (1121)
uf-, uft-, shake off (tr.) (426)
moθy wax-, moθy waxt- stir up ashes at second funeral (784)

yu·kuṛ-, yu·kuṛt- be possible, be amenable to persuasion
kwïṛ-, kwïṛt- give to 3rd person (1708)

ef-, et- shoot (691)
e·f-, e·t- receive (766)
kïf-, kït- cause itching, have an itch
o·f-, o·t- (thorn) runs into (foot); sink (post) in ground (338)
ko·f-, ko·t- wait, watch, (woman) marries (man) (1192)
po·f-, po·t- (leg) swells (4383)
uf-, ut- (fever) affects (565)
muf-, mut- become angry (4094)
u·f-, u·t- destroy suddenly (556)
mu·f-, mu·t- become old (4057)
pu·f-, pu·t- blossom (3564); wear (3577)
tesamf-, tesamt- perform hair-cutting and naming ceremony (1934)
kïmf-, kïmt- beat (drum), kill (1536)
tïmf-, tïmt- (deer) bells
twa·nf-, twa·nt- sweep (2788)
kenf-, kent- roar (1185)
nenf-, nent- think of (3050)
paḍf-, paḍt- slip (4336)
twaḍf-, twaḍt- pollute (2865)
paxf-, paxt- divide, distribute (3154)
ïxf-, ïxt- make people make way, open (loop, bangle) (352)
tïxf-, tïxt- make (buffalo) stand without running away (2621)
warf-, wart- rub into paste, wipe, wash (572)
kwarf-, kwart- bark, snore (1496)
kerf-, kert- scratch, egg on (1305)
terf-, tert- make loop (2653)
aṟf-, aṟt- cut, reap (266); (only S²) be thirsty (346)
kaṟf-, kaṟt- become black (1175); tighten (tr.) (1177)
paṟf-, paṟt- fry (4360)
taṟf-, taṟt- make poor (2564); make bald, pluck (2566)
kwaṟf-, kwaṟt- cut (1544)
twaṟf-, twaṟt- make to be on bad terms with (2768)
keṟf-, keṟt- be dammed, gather; dam (1648)
neṟf-, neṟt- fill (tr.) (3049)
peṟf-, peṟt- (milk) solidifies (3621); feel cold (4466)
e·ṟf-, e·ṟt- be hungry
pïṟf-, pïṟt- endure, be patient with (3729)
uṟf-, uṟt- have sexual intercourse with (608)
muṟf-, muṟt- remove bad effect of (sickness, poison)
aṛf-, aṛt- shut (73)
taṛf-, taṛt- delay, prevent (2460)

waṛf-, waṛt- break in pieces (tr.) (799); (blood) flows (849, 4269)
twïṛf-, twïṛt- entangle (2865)
öṛf-, öṛt- carry, lift and place, give in marriage (723)
puṛf-, puṛt- winnow (3493)
malf-, malt- (buffalo) looks sideways before charging (3952)
kwalf-, kwalt- make to be emaciated (1501)
twalf-, twalt- settle (debt) (2900)
niḷf-, niḷt- whistle (2392)
paɬf-, paɬt- drive (buffalo) with accompanying buffaloes (4348)
eɬf-, eɬt- pant (435)
peɬf-, peɬt- grow (tr.) (4464)
pöɬf-, pöɬt- be white (4524)
osf-, ost- hunger is (to me) (3165)
kasf-, kast- feed (solid food to child), mix (rice and milk, rice and curry) (1092)
wasf-, wast- defecate (840)
nu·sf-, nu·st- join (ends of threads by rolling) (3087)
peš̄f-, peš̄t- (milk, ghee) solidifies (3621)
ni·šf-, ni·št- become bruised (2387)
kïšf-, kïšt- pluck out by roots, rape (1316)
pošf-, pošt- ripen (intr.) (3299)
pö·šf-, pö·št- give name (3612)
i·ṣf-, i·ṣt- drag (427, 461)
o·ṣf-, o·ṣt- dance (312)
ko·ṣf-, ko·ṣt- be envious (1250)
po·ṣf-, po·ṣt- yield (fruit); (fruit) ripens (3299)
ö·ṣf-, ö·ṣt- boil (vegetables)
nö·ṣf-, nö·ṣt- measure the length (3126)
uṣf-, uṣt- plow (592)

(3a) $S^1y+t>S^2c$
e·y-, e·c- join (pieces) (761)
ti·y-, ti·c- singe, roast (2672)
kwïy-, kwïc- boil (1735); (snake) coils
twï·y-, twï·c- wash (clothes) (2933)
koy-, koc- be bitter (1047)
moy-, moc- become dark, become evening (4187)
poy-, poc- keep, place; beget, bear (4565)
toy-, toc- give the slip to (2028); be too big to go in or through, be too tight, be excessive
ko·y-, ko·c- bear fruit (1220)
to·y-, to·c- lower, humble (2597)
ofy-, ofc- calm (tr.) (226)
kofy-, kofc- escape; whisper

köfy-, köfc- break piece off (1129)
kud̲y-, kud̲c- make shallow hollow (1383)
mony-, monc- forgive (*DBIA* 291)
uny-, unc- think (625)
wïḏy-, wïḏc- save, put by (848)
oḏy-, oḏc- (stones) slip down, overcome, spend (235); be separated from, leave behind (848)
koḏy-, koḏc- die, disappear (1142)
poḏy-, poḏc- scrape with finger (4333)
peɬkoḏy-, peɬkoḏc- be ordained as priest
tuḏy-, tuḏc- turn (tr.) in a circle (2223); tell lie (2793)
kixy-, kixc- (worms) wriggle about in masses
ïxy-, ïxc- (calf) sucks (427)
kwïxy-, kwïxc- take a nap (1582)
ary-, arc- (woman) desires sexual intercourse (177)
kary-, karc- heat (new pot to purify it) (1073); (nose) tickles (1227)
pary-, parc- (horse) gallops, ride at a gallop (3268)
pïry-, pïrc- demolish (3435); part, open (4438)
tïry-, tïrc- twist (2655); separate (tr.) (2815)
müry-, mürc- break in two (4078)
kar̲y-, kar̲c- ornament with dots (1173)
mar̲y-, mar̲c- fell (tree) (3898)
par̲y-, par̲c- pluck forcibly (3317); beautify (S640A)
pïr̲y-, pïr̲c- use up (4471)
ïṛy-, ïṛc- pull down (house) (366); thunder (372)
wïṛy-, wïṛc- crack (joints) (799); kill by witchcraft (806)
kwïṛy-, kwïṛc- move violently (1385)
koṛy-, koṛc- feel like scratching (945)
moṛy-, moṛc- fold (intr., tr.) (3796)
toṛy-, toṛc- mark comes on skin (2457)
kiɬy-, kiɬc- ladle out (food) (1321); pinch with fingernails (1322)
piɬy-, piɬc- utter cry of joy or triumph (4460)
wïɬy-, wïɬc- hide (intr., tr.) (853)
koɬy-, koɬc- be fed up with
toɬy-, toɬc- sprinkle (intr., tr.) (2764)
püɬy-, püɬc- be sour (3546)
tüɬy-, tüɬc- twitter (2261); make hole (in stone or tree) (2907)
o·püɬy-, o·püɬc- yawn (333)

(3b) $S^1y+t>S^2t$
iḏy-, iḏt- seize, cling to (3412)
soy-, sot- die (others than Todas) (2002)

(3c) $S^1r/ɬ/ṛ/ɬ/ḏ/x+t>S^2t̲/ṭ/ṭ/ṭ/ṭ/k$
pïr̲-, pït̲- carry (3729)

kaɬ-, kaṭ- learn (1090)
a·ɬ-, a·ṭ- (stream) goes dry (346)
keɬ-, keṭ- hesitate
peɬ-, peṭ- (buffalo) goes dry (4355)
teɬ-, teṭ- wrap tightly (garment) (2564); pay (fine, debt) (2833)
koṇ eɬ-, koṇ eṭ- long for (733)
mu·n eɬ-, mu·n eṭ- like (733)
twï·ɬ-, tw·ïṭ- be defeated, become old (2936)
ö·ɬ-, ö·ṭ- be fat, (boil) comes to a head (776)
paṟɬ-, paṟṭ- (tree) dries up, dies (4355)
pïṛ-, pïṭ- release, leave (4419)
kwïṛ-, kwït- be supported, support
oṛ-, oṭ- cook (66)
poṛ-, poṭ- suffer, experience (3191); lie down (3190)
toṛ-, toṭ- bump foot (2466)
a·foṛ-, a·foṭ- talk (312)
maṟsoṛ-, maṟsoṭ- bear child
ne·poṛ-, ne·poṭ- echo
o·poṛ-, o·poṭ- be caught (888)
to·ḍboṛ-, to·ḍboṭ- feel way in dark (2454)
köṛ-, köṭ- be extinguished, be ruined, die (1614)
tugöṛ-, tugöṭ- be sad (tukm sorrow+köṛ-)
töḍxöṛ-, töḍxöṭ- be tired, weak, poor
tuṛ-, tuṭ- burn (tr.) (2183)
ke·ɬ-, ke·ṭ- hear (1677)
ïḍ-, ïṭ- put, place (375); hit, hit against (376)
wï·rïḍ-, wï·rïṭ- listen (893)
ux-, uk- leak, dribble (480)
pux-, puk- enter (3481)

(3d) S^1r/l+t>S^2t/t
wïṟ-, wït- undertake (3729)
swï·l-, swï·t- be defeated (2936)

(4) $S^2=S^1+d$
kwïḷ-, kwïḷd- hatch (1524)
koḷ-, koḷd- steal (1156)

(4a) S^1y+d>S^2d
mi·y-, mi·d- bathe (priest of the ti· dairy) (3995)
pöy-, pöd- burn (intr.) (4540)

(4b) S^1r/l/n/ṟ/ḷ/ṇ+d>S^2d/ḏ/ḏ/ḏ/ḍ/ḍ
pe·rf-, pe·d- be born (3622)
po·r-, pod- come (4311)
to·r-, tod- give to 1st or 2nd person or reflexive (2526)

sö·r-, sö·d- lean against (intr.) (1674); arrive (2312)
u·r-, u·d- disappear suddenly (556)

kwal-, kwad̲- run in circles, frisk about (S261)
ka·l-, ka·d̲- fall from tree, fall from height (1136)
te·l-, te·d̲- recover (life) slowly after swoon; do work (2856)
nïl-, nïd̲- stand (3043)
twï·l-, twï·d̲- be foreseen (2942)
no·l-, no·d̲- get wet in rain, (roof) leaks (3006)

i·n-, i·d̲- bear (calf) (473)
ïn-, ïd̲- say so-and-so (737)
tïn·, tïd̲- eat (2670)
ko·n-, ko·d̲- vomit (1236)

kïs̲-, kïd̲- be able (1307)

pe·ḷ-, pe·ḍ- (buffaloes) are frightened and run away (4519)
ni·ḷ-, ni·ḍ- be stretched out, peep over (wall) (3059)
kwïḷ-, kwïḍ- carry (corpse), wear (bell) (1788); quarrel (1789)
kiskwïḷ-, kiskwïḍ- tickling is (1274)
teš̆kwïḷ-, teš̆kwïḍ- hug (2543+1788)
pï·ḷ-, pï·ḍ- tumble over or down (3516)
o·ḷ-, o·ḍ- own (buffaloes), rule (341)
nö·ḷ-, nö·ḍ- make rope of bark (2369)
u·ḷ-, u·ḍ- roll (intr.) (571)
pu·ḷ-, pu·ḍ- wear around neck (3577)
tu·ḷ-, tu·ḍ- roll up (intr.) (2211); pull legs close to body (in sleep) (2213)

ko·ṇ-, koḍ- see (1209)
uṇ-, uḍ- drink, (rain) rains (516)

(4c) $S^1l+d>S^2d$

sal-, sad- belong to (2286)

Irregular
pï·x-, pi·- go (3734)
o·x-, o·y- become, be agreeable, be of use, menstruate (282)
ni·θ-, ni·θ- weave (3103; probably ni·θ-θ-)

KOTA

(1) $S^2=S^1+y$ (sometimes $S^1C+y>S^1yC$)

ap-, apy- throw (clay) into crevice to stop it (1928)
cap-, capy- suck repeatedly (1927)
tap-, tapy- make mistake, be lost, escape (2498)
ke·p-, ke·py- send
ci·p-, ci·py- suck out at one draught (2154)
op-, opy- be acceptable, accept (781)

ku·p-, ku·yp- blow with breath
kacp-, kacpy- be exposed to infection or pollution (916)
irp-, irpy- blow through (wind instrument, tube) (578)
orp-, orpy- excel (558); act in overweening fashion (559)
dab-, daby- put arms around (2543)
ub-, uby- (part of body) swells (573)
tub-, tuby- become full (in receptacle) (2735); sneeze (2740)
namb- namby- believe, trust (2975)
gadb-, gadby- hurry (999)
varb-, varby- (tears) stand in eyes ready to fall (4387); scoop up and snatch to oneself (small objects) (4392)
nurb-, nurby- twist, wring (3087)

kum-, kumy- pestle grain with slow strokes to remove husks (1536)

at-, aty- climb; fight (3320)
kat-, katy- burn (intr.), light (lamp) (1014)
vat-, vaty- (liquid) dries up (4355)
pugat-, pugaty- belly aches
a·t-, a·ty- expose to fire to remove pollution (346)
ca·t-, ca·ty- give a blow to, beat (2023)
ma·t-, ma·ty- change (intr., tr.) (3960)
na·t-, na·ty- make to become wet in rain (3006)
pa·t-, pa·ty- spread (cloth; intr., tr.) (3363)
va·t-, va·ty- scoop earth from hollow (4392)
e·ma·t-, e·ma·ty- cheat (760)
ka·pa·t-, ka·pa·ty- help, save (1192)
et-, ety- fight (731)
et-, eyt- carry, build (house), play or sing (681)
ket-, kety- dig with tool (1624)
met-, mety- plaster (semi-liquid) in handfuls (4156); be flattened (nose, ear, clay of pot)
pet-, pety- (liquid) solidifies (3621); (head) is flat on top
vet-, vety- weld (pieces of iron) (4540)
ce·t-, ce·ty- make to gather or enter a place (2312)
nerve·t-, nerve·ty- make ready, finish (3049)
kit-, kity- tear with the teeth (1316); rot (1337)
vit-, vity- sow (4428)
ot-, oty- be friendly (522, 834); go ahead (821); blow (bellows) (859)
kot-, koty- peck, bite (bird, snake), hook (small stick in playing tipcat) (1740)
pot-, poty- light (fire) (3691); dip (food) into broth (3709); (foot) is flat
tot- (toty-) escape (2768); live, exist
to·t-, to·ty- beat lightly (2917)

ut-, uty- draw out from a hole or a bundle (S74); (sun, moon) rises (*DBIA* 44)

cut-, cuty- go around; wrap around, coil (tr.) (2238)

kut-, kuty- pierce, prick, sew, butt with one horn (1429); build up (stones) to make a wall (1430)

mut-, muty- become ripe, (person) becomes old and wise (4057, 4117); come together in a dense crowd (4118)

u·t-, u·yt- fix into ground by pressure (650)

mu·t-, mu·yt- smell (tr.) (4000)

pu·t-, pu·yt- squint

tu·t-, tu·yt- void (excrement) (2796)

nant-, nanty- wet thoroughly (cloth, hide) so as to soften it (3006)

vent-, veynt- ask (4472)

art-, arty- pursue (game) (1952)

part-, party- spread (grain, chilies) in sun to dry (3255)

nert-, nerty- make to stand in a line (3042); bring to fruition (3049)

tirt-, tirty- change one's frame of mind (2659)

port-, porty- pollute by disregard of ceremonial details (3709)

kaṛt-, kaṛty- make to go out or cross (929); make to protrude (1137); wash (1154)

maṛt-, maṛty- turn over (tr., stone, log, sleeping person) (3898)

naṛt-, naṛty- teach to walk, make to proceed (2957)

e·d-, e·dy- drive away (754)

ce·d·, ce·dy- arrive, join, gather, enter (2312)

ke·d-, ke·dy- lean one's back against a support (1674)

kid-, kidy- sprinkle from ends of fingers (1294)

vid-, vidy- throw handful of (water) (4426)

kod-, kody- winnow out (whole grains from broken ones) (1782)

tod-, tody- cook grain or flour into solid mass (2717)

o·d-, o·dy- read, learn, pronounce (a charm) (886)

ko·d-, ko·dy- strike with sideways blow

u·d-, u·yd- become swollen, bloated (638); sink into ground of its own weight (650)

mind-, mindy- walk in front (4119)

pind-, pindy- walk behind (3452)

ond-, ondy- (things) grow together, be reconciled, intimacy arises (834)

mund-, mundy- walk in front (4119)

karnd-, karndy- look forward with great longing (1078)

pard-, pardy- (small objects) spread over large space, (news) spreads (3255)

pord-, pordy- be polluted by disregard of ceremonial details (3709)

aṛd-, aṛdy- tell (3298)

paṛd-, paṛdy- tell (3298)

eḷd-, eḷdy- write (725)

teṯ-, teṯy- (cattle) stray from herd (2830); opportunity is (2831)

cuṉd-, cuṉdy- boil away (intr.) (2191); test (coin) by flicking in air with thumbnail to ring it (2192)

da·ṭ-, da·ṭy- cross (mark, stream, mountain, road) (2578)
eṭ-, eṭy- be sufficient, be a match for (669)
mi·ṭ-, mi·ṭy- be successful in dispute or fight (3997)
ni·ṭ-, ni·ṭy- lengthen (iron, tr.) (3059)
pi·ṭ-, pi·ṭy- separate (joints of carcass) (3446)
oṭ-, oṭy- stick (intr.) (807)
coṭ-, coṭy- fall in drops, leak (2324)
po·ṭ-, po·yṭ- roll backwards and forwards (tr.) (3516)
u·ṭ-, u·yṭ- suckle (young of animals that stand while suckling) (516)
pu·ṭ-, pu·yṭ- fit into sheath (tr.) (3577)
mi·ṇṭ-, mi·ṇṭy- make to escape (3997)
pi·ṇṭ-, pi·ṇṭy- separate (joints of carcass) (3446)
kuṇṭ-, kuṇṭy- limp, be lame (1408)
mavṭ-, mavṭy- overturn (tr.), push with body (3769)
marṭ-, marṭy- overturn by levering (3898)
perṭ-, perṭy- turn upside down (tr.), dislocate (joint) by force (3516)
terṭ-, terṭy- make to be round, turn in lathe (2654)
verṭ-, verṭy- cause (cattle) to have extreme fear (4519)
porṭ-, porṭy- roll backwards and forwards (tr.) (3516)
urṭ-, urṭy- roll over and over (tr.) (571)
curṭ-, curṭy- coil, roll (tr., mat, cloth) (2211)

oḍ-, oḍy- set (trap) (811); crouch down behind shelter (817)
doḍ-, doḍy- grow big (2875)
aṇḍ-, aṇḍy- be in place to seize prey, be in the same place with (69)
daṇḍ-, daṇḍy- engage in communal work with, accompany on equal terms, work off (debt) (2482); spend (time)
maṇḍ-, maṇḍy- (calf) becomes accustomed to suckle (3807); agree to do something when person begs
taṇḍ-, taṇḍy- (debt) is paid, pay off (debt), win in contest (2482); (time) is past for doing something
na·ṇḍ-, na·ṇḍy- feel modesty before elder person (3014)
iṇḍ-, iṇḍy- twist (something wet), oppress by exerting uninterrupted pressure (3440)
kiṇḍ-, kiṇḍy- flatter
miṇḍ-, miṇḍy- kick, refuse to heed (3970)
mi·ṇḍ-, mi·ṇḍy- escape (3997)
pi·ṇḍ-, pi·ṇḍy- tangle, entwine (tr.) (3423)
ti·ṇḍ-, ti·ṇḍy- be polluted by illegal sexual intercourse (2680)
noṇḍ-, noṇḍy- limp dragging one leg uselessly (3138)
muṇḍ-, muṇḍy- kick, refuse to heed (4074)

u·ṇḍ-, u·ṇḍy- transplant (650)
tu·ṇḍ-, tu·ṇḍy- force to an action (2782)

kak-, kaky- cough, regurgitate (909)
mak-, maky- fall into unconsciousness (3890)
nak-, naky- lick (2945)
vak-, vaky- bend (intr.), be cowed (4371)
a·k-, a·yk- make to become, construct (plow) (282)
ca·k-, ca·yk- make to grow, rear, support (2003)
ta·k-, ta·yk- touch with hand (2570)
va·k-, va·yk- pour out slowly (tr.) (4370)
ora·k-, ora·yk- look sideways (buffalo before charging)
ek-, eky- scratch (oneself, an itching limb) (652)
mek-, meky- purify with manure-water (4169)
ve·k-, ve·yk- winnow (rice) to remove stones with side-to-side motion (4479)
cik-, ciky- be caught, be got (2060)
mik-, miky- be left over, be saved from death (3962)
pi·k-, pi·ky- part (tr., hair, bushes) (3459)
vi·k-, vi·ky- let fall, fell (4457)
ok-, oky- drive (bullocks) around in threshing (784); ooze (849)
cok-, coky- take a nap; change color (fruit past prime, face because of starvation) (2333)
kok-, koky- become very bent with age (1689)
o·k-, o·yk- raise (something) in direction of (870)
po·k-, po·yk- spend (a period of time) (3734)
i·ro·k-, i·ro·yk- make to spend time pleasantly
uk-/ug-, uky- enter (3481)
muk-, muky- make a strenuous effort, strain oneself (4010)
u·k-, u·yk- cause to slide down a hill (426)
mu·k-, mu·yk- cause to submerge (4096)
tu·k-, tu·yk- carry on shoulder, weigh (2777)
amk-, amky- press hard (143)
vadk-, vadky- prosper (4402)
edk-, edky- jump high, (Todas) dance (684)
odk-, odky- make to be ready (522)
nuṅk-, nuṅky- (? nuṇk-) cut a small piece of meat for broth (implies poverty) (3066)
koṭk-, koṭky- strike (1717, 1718)
oṇk-, oṇky- dry in sun or heat (tr.) (517)
mick-, micky- yield to importunity (3964)
pick-, picky- squeeze, pinch (3404)
uck-, ucky- move slightly horizontally (tr.) (494)
tovk-, tovky- begin (2754)

ark-, arky- use up extravagantly (184); (father) refuses to repay brideprice (186)
kark-, karky- melt, dissolve (tr.) (1086)
erk-, erky- put down (load), (priest) unties front hair (439)
nerk-, nerky- twirl (tr.), rub between hands (2387)
perk-, perky- cajole with good words, coax
verk-, verky- finish (tr., work, ceremony, etc.) (4471)
irk-, irky- tighten (clothes), pinch, press tightly in crowd (447)
tirk-, tirky- turn (tr.) (2655)
curk-, curky- make small (2213)
kurk-, kurky- make small (1537)
murk-, murky- be on bad terms with, refuse to do what one is told (4111)
turk-, turky- push through a hole, cram into mouth (2770)
aṛk-, aṛky- cause to stop or to be piled in order (70)
maṛk-, maṛky- fold (tr.) (3796)
taṛk-, taṛky- search for (2454)
oṛk-, oṛky- reduce (iron) in breadth (804); embroider (851)
muṛk-, muṛky- screw into place, keep (wife) in order (4034)
alk-, alky- shake (tr.) (203)
kalk-, kalky- mix (tr.) (1096)
melk-, melky- soften by action of water or heat (tr.) (4167)
telk-, telky- divide so as to examine or go through (2900)
tolk-, tolky- release from debt (2900)
kulk-, kulky- shake (tr.) (1501)
paḷk-, paḷky- tame (3296)
eḷk-, eḷky- lift slightly in vertical direction, lever (432)
veḷk-, veḷky- clean with water (4524)
muḷk-, muḷky- make to have complete loss (4096)

jag-, jagy- become lean (1977); become afraid (1882); (solid) budges from place (1950)
mag-, magy- (light) becomes less, lose color (3890)
nag-, nagy- become dented, slightly hollowed (2387)
tag-, tagy- draw back from flight, (grain) settles when shaken, (ground) is hollowed by thunderbolt, become physical wreck from a beating (2597)
vag-, vagy- be slightly bowed down, be obedient (4371)
ca·g-, ca·yg- (time) passes, (man) becomes old, (possessions) are moved from one house to another (2006); be possible (to do) (2037)
va·g-, va·yg- bulge (tr., pot) (4371)
neg-, negy- suffer reverse of fortune (3094); be close-woven (3103)
ig-, igy- separate (intr.) from others (3091)
i·g-, i·gy- (belly or person) feels hungry
ni·g-, ni·gy- cover a large expanse (intr.) (3052)
pi·g-, pi·gy- be parted (hair, bushes) (3459)

og-, ogy- be infatuated (476)
pog-, pogy- boil over (3658)
to·g-, to·yg- intuition comes (to person) (2942)
i·ro·g-, i·ro·yg- time goes pleasantly, spend time pleasantly
cug-, cugy- be creased (2213)
nug-, nugy- work hard (to support a family) (3089)
u·g-, u·yg- slide down a slope (426)
mu·g-, mu·yg- submerge oneself (4096)
tu·g-, tu·yg- hang (intr.) (2777)
amg-, amgy- be pressed hard (143)
odg-, odgy- help, become ready (522)
oṇg-, oṇgy- become dry in heat (517)
gicg-, gicgy- it is suitable (to do), be a suitable person (to do), be able (1307)
picg-, picgy- be soft so that it can be squeezed (3404)
ocg-, ocgy- sweep (572)
ucg-, ucgy- move slightly horizontally (intr.) (494)
arg-, argy- be reduced (swelling, water evaporating, depression of mind), become reformed (184)
karg-, kargy- be dissolved, melted (1086)
erg-, ergy- go down (439)
verg-, vergy- be finished (work, desire) (4471)
irg-, irgy- become tight or tightly wedged in (447)
tirg-, tirgy- turn (intr.) (2655)
org-, orgy- sleep (606)
curg-, curgy- stint oneself to support family (2213)
kurg-, kurgy- become small (1537)
murg-, murgy- growl (4113)
turg-, turgy- be pushed into a hole, sink into swampy ground (2770)
aṛg-, aṛgy- stop, be obedient (56); be piled up in order (70); (cattle) bellow in protest at ill-treatment (240)
naṛg-, naṛgy- shake (intr., from cold, fright, old age) (2960)
oṛg-, oṛgy- be destroyed (804)
guṛg-, guṛgy- thunder (1382)
muṛg-, muṛgy- be screwed up (4034)
alg-, algy- (tree) shakes, walk swaggeringly (203)
kalg-, kalgy- be mixed (1096)
otalg-, otalgy- avoid by going around (834)
melg-, melgy- soften by water or heat (intr.) (4167)
telg-, telgy- (hair, bushes) are divided (2900)
kulg-, kulgy- shake (intr., shaman, man with fever, angry man) (1501)
paḷg-, paḷgy- become tame, amenable (3296)
eḷg-, eḷgy- be raised slightly, lift oneself slightly (432)
veḷg-, veḷgy- (country) becomes a little light before dawn (4524)
toḷg-, toḷgy- wash (one's hands with tears) (2764)

muḷg-, muḷgy- be lost to one completely (4096)
jaŋg-, jaŋgy- be loose (1883)
maŋg-, maŋgy- (light) becomes less, lose color (3890)
taŋg-, taŋgy- spend time in a place away from home (2443)
ta·ŋg-, ta·ŋgy- support (burden, ill-treatment), make to escape from death or ill-treatment (2573)
e·ŋg-, e·ŋgy- grieve (745)
miŋg-, miŋgy- swallow (3985)
oŋg-, oŋgy- change magically into something else, be a half-breed (834)
poŋg-, poŋgy- increase magically in number, (water) springs forth magically, anger increases (3658)
toŋg-, toŋgy- hang (intr.) (2863)
nuŋg-, nuŋgy- gulp down without chewing (3064)
padŋg-, padŋgy- lie crouching for a spring (3233)
poḷŋg-, poḷŋgy- have social intercourse according to caste or intercaste usage (3296)

a·r-, a·ry- do broad jump (316); become cool, (dew) dries, (wound) heals (346)
ca·r-, ca·ry- tell news of at all places (2052)
ka·r-, ka·ry- vomit (1236)
ma·r-, ma·ry- sell, change (intr.), (sun) sets (3960)
e·ma·r-, e·ma·ry- gasp (760)
na·r-, na·ry- smell bad (2379)
e·r-, e·ry- (advice) is listened to (776)
ke·r-, ke·ry- winnow out chaff with up-and-down motion (1679)
te·r-, te·ry- be satisfactory in one's actions; (day) dawns (2856)
ki·r-, ki·ry- tear (intr., tr.) (1353)
mi·r-, mi·ry- be extreme in anything, refuse to heed (3998)
pi·r-, pi·ry- press way through obstruction, cut (animal's belly) (3473)
ti·r-, ti·ry- (matter) is settled, finished (2683)
vi·r-, vi·ry- throw (light things) (4492)
jo·r-, jo·ry- (tears and snot) run in streams (2353)
to·r-, to·ry- be visible (2942)
u·r-, u·ry- throw, act violently (4492)
cavr-, cavry- slash down a collection of standing plants (1975)
tavr-, tavry- make mistake, omit (2498)
taḷa·r-, taḷa·ry- take a rest (2551)

va·ṛ-, va·ṛy- (flower) withers, (face) becomes haggard (4377)
pu·ṛ-, pu·ṛy- yoke, prepare (bellows in smithy) (3577)

taḷ-, tayḷ- push (2559)
ba·ḷ-, ba·ḷy- become exhausted from hunger (3958)
ta·ḷ-, ta·ḷy- stop and wait (2605)
va·ḷ-, va·ḷy- (woman) lives prosperously with her husband (4402)

teḷ-, teyḷ- winnow (flour) gently (2827)
toḷ-, toḷy- disparage good qualities of (2902)

(1a) $S^1c/j+y>S^2c/j$
cac-, cac- hammer with heavy blows (1916)
kac- be bitter (1047)
nac- have great liking for (2951)
tac- kill (animal) (2518)
ka·c- make hot, boil, dry before fire (1219)
pa·c- be suitable (3343); (pair word with parc- pray; 3298)
va·c- (pair word with vadk- prosper; 4402)
ec- increase in number (3613); pick (fruit) (S93)
mec- praise (3865)
nec- weave (3103)
me·c- make to graze (4179)
pe·c- talk to oneself (3629); put garments on (someone) (S717)
ic- shoot (691)
vic- talk impudently to superior (4477)
i·c- drive (397)
ki·c- cut by chipping (1343)
ti·c- singe (tr.) (2672)
vi·c- exercise violence, grind with grinding stones, (wind) blows (4479)
uc- have diarrhoea (576)
muc- cover (4025)
u·c- be spilt, spill (tr.) (480)
gu·c- lie or fall in a mass, (rain) pours down; put down in a mass (1558)
tapc- make (oneself or someone else) to escape (2498)
opc- hand over, entrust (781)
ubc- coax (child) with pleasing words (573)
tubc- make (something) fill (something) (2735)
amc- press hard (143)
ne·mc- select, appoint (*DBIA* 231)
katc- make to burn (1014)
patc- make to be stuck fast (3320); strike a heavy blow
metc- make to be flat
cadc- dance or sing following the music (Skt. śabda-$>$Ta. catti- to sound)
madc- (woman) obeys or respects (husband) (*DBIA* 284)
kodc- quiver (eyelid, water about to boil, flesh of animal just killed) (1735)
co·dc- examine, test (*DBIA* 180)
ondc- make to be joined, make to be reconciled (834)
kanc- expose (dead person's jewelry) to fire to remove pollution (1183)
manc- forgive (*DBIA* 291)
na·nc- make to be wetted (3006)
nenc- think (3050)

dinc-/tinc- (sun) shines
minc- flash, glitter (3994)
ninc- make to stand (3043)
diṭc- create by fiat (Skt. diṣṭa- order, fate>MIA diṭṭha-)
coṭc- cause to fall in drops (2324)
uṭc- create, bear, beget (3501)
doḍc- cause to grow big (2875)
iṇḍc- twist (something wet), oppress by exerting or causing to exert uninterrupted pressure (3440)
taṇc- make to become cool, calm (2473)
a·ṇc- aim (tr.), be prepared for an action
koṇc- (calf) frisks (1547)
kakc- make to cough (909); snatch hastily (1136)
takc- sprinkle (water) from palm of hand (2438); make to give to 1st or 2nd person (2526); carry (child) under cloak (2543)
vakc- make to come (4311); bend (iron), make to be obedient (4371); make (woman) marry (4402)
a·kc- make to become, prepare (282)
cike- get, obtain, make to be caught (2060)
mikc- save (money, life) (3962)
gagc- make tentative noises on clarinet before playing (1085)
nagc- dent (2387)
ca·gc- shift possessions from one house to another, pass one's life (with a person) (2006)
negc- make to suffer ill-fortune (3094); make closewoven (3103)
igc- ignite (fire) with kindling (407); separate (tr.) (3091)
ni·gc- make to cover a large expanse, (feline) walks making its body long (3052)
nugc- pound (chilies with pestle) (3089)
kavc- cover with a garment (oneself or someone else) (1024); unfasten (something fixed in place, jewelry), knock out (teeth) (1129); finish (ceremony) (1142)
movc- (priest) prays for someone else, waving hand up and down (4007)
marc- keep secret in mind, (grief) comes to end, cause (someone's grief) to come to end (3897)
parc- pray (3257)
a·darc- look after, care for (Skt. ādara- care, respect>Ta. ātari, Ka. ādarisu)
nocarc- click the tongue in disapproval or grief (2396)
a·rc- make (liquid) cool, make to dry in heat (346)
va·rc- whip (4409)
te·rc- make (day) to dawn (2856)
pirc- separate (tr., persons) (3435)
tirc- cause (calf) to change its smell so that another cow will suckle it (2655)

ti·rc- finish (tr., affair or undertaking) (2683)
korc- reduce in size (tr.) (1537)
etorc- bring to senses from sleeping state (723)
anjrc- terrify (51)
aṛc- (flame) shoots up, make (flame) shoot up (234)
me·kaṛc- make to get up (929)
a·ṛc- make to move violently, stir, disturb (290)
eṛc- think and say ill of someone, shame (676)
keṛc- ruin, lose (1614); smear (liquid)
peṛc- talk irrelevantly (3629)
piṛc- clench (hand) (3412)
viṛc- make to leave or let go, divorce (woman) (4419)
oṛc- break (kindling) (799); (Kurumba) kills by sorcery (806)
poṛc- winnow with long strokes to remove husks (3493)
jo·ṛc- put on (jewelry) (*DBIA* 179)
muṛc- finish (work) (4031)
calc- pay (vow, debt), inform (2286)
kalc- teach (1090)
valc- (grain) becomes solid lump when boiled, (man) becomes stout, (heart) becomes bold (4317)
gelc- win and secure (something) (1641)
kilc- utter shrill cry of joy (1311)
nilc- make to stand (3043)
poglc- (hand) becomes blistered from heat (3648)
aḷc- be erased; erase (235)
kaḷc- taste salty (1145)
paḷc- abuse (3297)
vaḷc- use (domestic utensils) (4330); make to be round, walk in a circle (4348)
makaḷc- disobey, break (word) (3769)
eḷc- (blister) rises (432)
teḷc- regain consciousness (2825); sprinkle (liquid) (2827)
puḷc- be sour, (mouth) tastes sour (3546)
veyc- burn up (tr.) by holding in fire, cook (tr.) (4540)
oŋgc- change (tr.) magically into something else, breed from two different strains (834)
poŋgc- increase (tr.) magically in number (3658)
toŋgc- hang (tr.) (2863)

aj-, aj- dip in liquid and remove before object is soaked (244)
kej- flay (1290)
ve·j- thatch (4552); peep, eavesdrop (4553)
ko·j- (limb) goes asleep (1815)
uj- rub, file, sharpen (572)
u·j- slide down a slope (426)

varj- wrap (4305)
orj- rub (572)
anj- fear (51)
ma·nj- keep secret in one's mind, (menstruation) ceases at menopause (3946)
kenj- beg (1612)
ginj- show (teeth) with a snarl (1268)
i·nj- decorate (wall) with lines
ni·nj- swim (3054)
u·nj- move by jerks on posterior (642)
mu·nj- have spasmodic jerking of limbs in sleep (4080)
pirnj- separate oneself from (3435)
kornj- become reduced in size (1537)
giṛnj- have bushy, uncombed hair; fix firmly in ground

(1b) S^1ṯ/ṭ/ṛ/ḍ+y>S^2c/c/c/j
aṯ-, ac- seize firmly, persist (in doing) (3320)
paṯ-, pac- catch, seize; it suits, pleases (3320)
e·ṯ-, e·c- place (burden) on (776)

aṭ-, ac- pour (87)
kaṭ-, kac- tie, build, manage (house) prosperously; be equal to (961); pay (price) (963)
taṭ-, tac- pat, strike with flat of hand, kill (animal), (grief, curse) strikes, sharpen, disregard (words) (2466)
ekaṭ-, ekac- count (656)
a·ṭ-, a·c- give birth to (child) (290)
ka·ṭ-, ka·c- show (1209)
ma·ṭ-, ma·c- make (fire) burn (3935)
meṭ-, mec- tread on (4150)
ni·ṭ-, ni·c- stretch out (limb), lengthen (iron) (3059)
ti·ṭ-, ti·c- feed by hand (2670); paint, rub on (liquid) (2678)
oṭ-, oc- fasten up hair on nape of neck (807)
poṭ-, poc- burst noisily (3674); blink (the eyes, intr., tr.) (3678); (hand) blisters (3679)
o·ṭ-, o·c- (iron) becomes long
no·ṭ-, no·c- look at (3144)
to·ṭ-, to·c- wash clean (cloth) (2933)
uṭ-, uc- (plant, hair) sprouts, be born (3501)
kuṭ-, kuc- pound (1391)
muṭ-, muc- meet, harm (4041); touch (4043)
ku·ṭ-, ku·c- make to enter or join with or gather (1562)
i·gu·ṭ-, i·gu·c- stop an activity (tr.)
pu·ṭ-, pu·c- juggle in air

a·ṛ-, a·c- move violently, dance (290)

ve·ṛ-, ve·c- collect, fetch, get (4548)
ni·ṛ-, ni·c- (iron) becomes long by expansion (3059)
o·ṛ-, o·c- run (877)
ku·ṛ-, ku·c- join (intr.), gather, (wound) heals (1562)
i·gu·ṛ-, i·gu·c- stop an activity (intr.)

to·ḍ-, to·j- dig a deep hole (2927)

(2) $S^2 = S^1 + d$

cam-, camd- be finished (1935)
e·ma·n-, e·ma·nd- be cheated (760)
parn-, parnd- run fast without stopping, become helpless because of sudden fright (3311)
av-, avd- dig hole with tool (12)
nav-, navd- (cloth) becomes damp and chilly (2994)
tav-, tavd- butt with both horns (2506)
vav-, vavd- cut (meat) into strips for roasting or pemmican (4393)
mev-, mevd- scoop up in both hands
pev-, pevd- (ghee, butter) solidifies (3621)
tev-, tevd- (woman) has anticipatory menstrual ceremony before festival (2435); (river) subsides, thin walls of pot before closing bottom (2804)
civ-, civd- be numerous
kiv-, kivd- become torn (1316)
niv-, nivd- stroke, massage, comb (hair) (3058)
u·v-, u·d- sink into ground of its own weight (650)
ku·v-, ku·d- (grain) spoils by getting wet (1514)
mu·v-, mu·d- scoop up with pot (4001); raise (hand) in salute (4007)
kanv-, kand- bellow for calf (1185)
nanv-, nand- become wet so as to be softened (3006)
arv-, ard- be tight (necklace, handle of ax)
jarv-, jard- slip and fall, slide down a slope (1950)
karv-, kard- bellow, (crow) croons (1085); milk (1166); (rope) becomes tight (1177)
marv-, mard- be forgotten, forget (3897)
tarv-, tard- become abraded by moving over rough surface (2563); (head) becomes bald (2566)
varv-, vard- write (4304); hit with stick (4409)
erv-, erd- shine brightly (not the sun) (694)
nerv-, nerd- stand in a line (3042); happen, (girl) reaches puberty (3049)
perv-, perd- be born (3622)
terv-, terd- roll up (tr.) (2654); open (tr.) (2667)
verv-, verd- grow (to be such-and-such)
orv-, ord- touch or stroke gently (572)
corv-, cord- (milk) streams from udder by itself (2353)
korv-, kord- be reduced in size or number (1537); be cold (1802)

morv-, mord- mumble (4113)
urv-, urd- sink into ground or hole of its own weight (619)
aṛv-, aṛd- become blocked by an obstacle (73)
kaṛv-, kaṛd- go through, across, past, (sun, moon) rises (929); churn (957)
maṛv-, maṛd- (water) bubbles and boils (3799)
naṛv-, naṛd- walk, proceed, happen (2957)
paṛv-, paṛd- (tree-fruits) become ripe, (boil, sore) opens (3299)
taṛv-, taṛd- become marked with itching spots by irritant plant (2457)
pa·ṛv-, pa·ṛd- make noise (crow, bees, gun) (3348)
eṛv-, eṛd- spring up from position, fly (723)
mayeṛv-, mayeṛd- shiver
jeṛv-, jeṛd- (hair) is bushy and uncombed (1897)
keṛv-, keṛd- shake (tr., cloth, mat) (1385)
oṛv-, oṛd- break (intr.) (799)
poṛv-, poṛd- increase in number (intr.) (3722)
toṛv-, toṛd- put arms around (2865)
alv-, ald- become fatigued by walking or searching (200)
jalv-, jald- (person) becomes lean and stringy with age (1977)
kalv-, kald- knead (1092)
cilv-, cild- break along the length of the grain (intr.) (2114)
kolv-, kold- suffer because of disease (1501)
aḷv-, aḷd- measure (252)
kaḷv-, kaḷd- steal (1156)
veḷv-, veḷd- grow, become fat, (grain) becomes ripe (4464)
ciḷv-, ciḷd- (legs) spread apart
koḷv-, koḷd- (flesh) putrifies so that it falls apart (1514)

(2a) $S^1ṛd+d>S^2yd$
aṛd-, ayd- tell (3298)
paṛd-, payd- tell (3298)

(2b) $S^1n/ṇ+d>S^2n\underline{d}/ṇḍ$
na·n-, na·n̲d- become wet in rain (3006)
ne·n-, ne·n̲d- become immovably stuck on a high place (2373)
nin-/nil-, nin̲d- stand (3043)
i·n-, i·n̲d- (animal) bears young (473)
ku·n-, ku·n̲d- be in a bowed position (1605)
nu·n-, nu·n̲d- strain to reach or see
tu·n-, tu·n̲d- pull along something that does not resist, rape (2741)
eyn-, eyn̲d- make noise of assent while listening

aṇ-, aṇḍ- pluck
mi·ṇ-, mi·ṇḍ- escape (3997)
pi·ṇ-, pi·ṇḍ- become entangled, entwined (3423)
po·ṇ-, po·ṇḍ- roll backwards and forwards (intr.) (3516)
terṇ-, terṇḍ- leave the company (2815)

korṇ-, korṇḍ- become numb (1537)

(2c) $S^1r^1/r^2/l/n/ḷ/ṇ+d>S^2d/\underline{d}/\underline{d}/\underline{d}/ḍ/ḍ$

ce·r-, ce·d- arrive, join, gather (2312)
va·r-, vad- come (4311)

ta·r-, ta$\underline{d}$- give to 1st or 2nd person (2526)

gel-, ge$\underline{d}$- win (1641)

a·n-, a·$\underline{d}$- (mouth) opens; open (mouth) (9)
in-, i$\underline{d}$- say so-and-so (737)
tin-, ti$\underline{d}$- eat (2670)
bu·n-, bu·$\underline{d}$- fail because forestalled
bu·n-/bu·v-, bu·$\underline{d}$- (hair) becomes white

koḷ/koṇ-, koḍ- health is good, (milk) is abundant (1784); marry (a wife), buy (cattle), begin (funeral) (1788); pain (1789)
a·ṇ-, a·ḍ- possess, own, keep, rule (341)
ka·ṇ-/kaṇ-, kaḍ- see (1209)
ni·ṇ-, ni·ḍ- (iron) becomes long by expansion (3059)
uṇ-, uḍ- drink (516)
i·ruṇ-, i·ruḍ- there is willingness to stay in a place
mavṇ-, mavḍ- overturn, roll over once (intr.) (3769)
marṇ-, marḍ- overturn, roll over once (intr.) (3898)
perṇ-, perḍ- turn upside down (intr.), (joint) is dislocated, change mind (3516)
terṇ-, terḍ- become round (butter when churned), become plump (2654)
verṇ-, verḍ- become extremely afraid (4519)
korṇ-, korḍ- become numb (1537)
porṇ-, porḍ- roll backwards and forwards (intr.) (3516)
urṇ-, urḍ- roll over and over in one direction (intr.) (571)
curṇ-, curḍ- lie in coils (2211)

(2d) $S^1l+d>S^2d$

cal-, cad- (prayer) is acceptable to god, (coin) is genuine, (wife) is suitable mate (2286)

(3) $S^2=S^1+t$

cam-, camt- finish (tr.) (1935)
nav-, navt- make (cloth) to become damp and chilly (2994)
pav-, pavt- lift solid lump of cooked grain onto plate
pev-, pevt- cause (butter, ghee) to solidify (3621)
tev-, tevt- pull along or out of, make clay rise in cylinder in throwing pot (2804)
civ-, civt- have liking for; (rain) falls hard
ov-, ovt- kick (527)

tav-, tat- die (2495)

a·v-, a·t- give (name) (4227)
ka·v-, ka·t- watch, guard (1192)
va·v-, va·t- (part of body) swells (4383)
pe·v-, pe·t- wear (garment) (S717)
co·v-, co·t- be defeated (2936); become tired (2354)
ko·v-, ko·t- thread (1809)
ku·v-, ku·t- cause (grain) to be spoiled by wet (1514)
pu·v-, pu·t- (mouth) becomes dry with fever (3565)
icv-, ict- shoot (691)
kicv-, kict- make grimace (1268)
vigv-, vigt- (handle of tool) becomes tightly fixed (4411)
noṇv-, noṇt- (penis) becomes erect
arv-, art- grind (chilies) (191); cut (meat) into small pieces for broth (266); (water) is wanted (346)
jarv-, jart- cause to slip and fall (1950)
karv-, kart- tighten (knot) (1177)
tarv-, tart- abrade by moving over rough surface (2563)
varv-, vart- (tissues) become dry with fever (4355)
kerv-, kert- bark (1496)
verv-, vert- become numb from exposure, become insensate (4466); dislike (a person) (4537)
cirv-, cirt- be angry with (1329)
orv-, ort- rub (with stone in making pots, juicy plant on stone in making medicine) (572)
korv-, kort- make (club) from fallen branch (1544)
porv-, port- endure (3729)
urv-, urt- press forcibly into hole or ground (619)
kurv-, kurt- snore (1496)
kek(a)rv-, kek(a)rt- paw ground (1305)
aṛv-, aṛt- (door) shuts; shut (door, hole) (73)
taṛv-, taṛt- obstruct (2460)
eṛv-, eṛt-, cause to spring up from position (723)
teṛv-, teṛt- clean up (semi-liquid mess) by rubbing (2678)
oṛv-, oṛt- break (tr.) (3588)
alv-, alt- cause to be fatigued (by walking, etc.) (200)
kelv-, kelt- dig with hands or paws (1108)
cilv-, cilt- tear along the length of the grain (tr.) (2114)
kolv-, kolt- make to suffer by beating or wounding (1501)
kaḷv-, kaḷt- flick away dirt, take out of narrow-mouthed container by finger or stick (1157)
eḷv-, eḷt- pant (435)
veḷv-, veḷt- cause to grow (4464); become pale (4524)
iḷv-, iḷt- drag on ground (intr.); drag something on ground or from hole; suck (427)

ciḷv-, ciḷt- spread (tr., legs)
viḷv-, viḷt- whistle (4490)

(3a) $S^1y+t>S^2c$ (sometimes S^1y is S^1yC)
vay-, vac- keep, place, bear, beget (4565)
a·y-, a·c- pick up, pluck (306)
ka·y-, ka·c- become hot (1219)
ey-, ec- shoot (691)
gey-, gec- make, do (1628)
me·y-, me·c- (cattle) graze (4179)
te·y-, te·c- become worn down or lean; rub, wear down (tr.) (2846)
iy-, ic- shoot (691)
i·y-, i·c- (flood) subsides (364); drive (397)
ti·y-, ti·c- be singed, roasted, (flame) burns low (2672)
oy-, oc- (rain) rains (3610); beat (percussion instrument) (3704)
koy-, koc- cut (1763)
poy-, poc- beat with hand (3704)
to·y-, to·c- wash clean (a cloth) (2933)
ayv-, avc- chew (127)
pany-, panc- think (3322)
neny-, nenc- think (3050)
uny-, unc- think (625)
mayṇ-, maṇc- talk, abuse, scold (3822)
tayṇ-, taṇc- (body) becomes cool (in fever, at point of death) (2473)
koṇy-, koṇc- (calf) frisks (1547)
ayr-, arc- (mouth) burns (177); know (265)
kayr-, karc- laugh (1172)
mayr-, marc- (tree) falls; pull up by roots (3898)
payr-, parc- break by pulling ends (intr., tr.) (3317)
tayr-, tarc- cut using implement with one hand (2562)
eyr-, erc- cut (731)
teyr-, terc- choose (2815)
oteyr-/oti·r-, otrc- excel
kiry-, kirc- shout (1323)
piry-, pirc- separate part from part (intr., tr.), demolish (building) (3435); make (rope) by twisting (3436)
tiry-, tirc- change in nature for the worse (intr.) (2655)
kati·r-, kat(a)rc- cut (2562)
maki·r-, mak(a)rc- (tree) is uprooted and falls (3769)
pati·r-, pat(a)rc- divide, share (3154)
kuki·r-, kukrc- sit down (1356)
tavi·r-, tav(a)rc- kill (2495)
poyr-, porc- puff (grain) (3705)
toyr-, torc- pour out slowly (2353)

ury-, urc- hate, it pains (565)
mury-, murc- break (sticklike thing, intr., tr.), indent (neck in throwing pot) (4078)
pury-, purc- make (rope) by twisting (3436)
ayṛ-, aṛc- strike (ball in game) (67)
kayṛ-, kaṛc- bite (945)
iṛy-, iṛc- crush (366); (heart) beats fast, thunder (372)
kuṛy-, kuṛc- drink (1378)
muṛy-, muṛc- be possible (4032)
kayḷ-, kaḷc- taste salty (1145)
nayḷ-, naḷc- play (2988)
teyḷ-, teḷc- regain consciousness (2825); sprinkle (liquid) (2827)
kiḷy-, kiḷc- (man) retracts foreskin, (woman) opens labia
oyḷ-, oḷc- hide (intr.) (853)
toyḷ-, toḷc- pierce (2907); (mouth) has astringent taste
nuḷy-, nuḷc- pinch (3079)
puḷy-, puḷc- be sour, (mouth) tastes sour (3546)

(3b) $S^1g/y+t>S^2ṛt/ṛt$
ag-, aṛt- weep (240)
vag-, vaṛt- (woman) is married to (4402)
kig-, kiṛt- pluck or seize forcibly (1316)
vig-, viṛt- fall (4457)
ug-, uṛt- plow (592)
pug-, puṛt- hide (tr.) (3588)
aḍmug-, aḍmuṛt- bow to ground before god or godlike person (4208)
me·ki·- (<*me·kay-), me·kaṛt· get up (929)

(3c) $S^1ṛt+t>S^2yt$
kaṛt-, kayt- make to cross, send off (929); wash (1154)
maṛt-, mayt- turn over (tr.) (3769)

(3d) $S^1d/r^1/r^2/l/ḷ/ṛ/ḍ+t>S^2t/t/ṯ/ṯ/ṭ/ṭ/ṭ$
od-, ot- kick (527)
a·r-, a·t- call, summon (312)
ir- (ig-), it- be (407)
vekar-, vekaṭ- be puzzled (4494)
ter-, teṭ- pay (debt) (2833)
or-, oṭ- undertake (vow, responsibility), obey (3729)
por-, poṭ- bear up (child in arms, water ...dead body), obey the words of (3729)
etor-, etoṭ- come to senses after sleep (723)
kur-, kuṭ- pound (clay in preparation for making pots) (1536)
kal-, kaṭ- learn (1090)
e·l-, e·ṭ- catch in something held up (766)

ke·ḷ-, ke·ṭ- hear (1677)

aṛ-, aṭ- cook by boiling (66); (something) happens to a person (69)
naṛ-, naṭ- (sweat) streams (87); fix upright in ground (2958)
paṛ-, paṭ- lie down, sleep (3190); experience (emotion) (3191)
keṛ-, keṭ- be lost, ruined, die (1614)
viṛ-, viṭ- release, untie, leave (4419)
koṛ-, koṭ- give to 3rd person (1708)
tuṛ-, tuṭ- roast, bake (pots), burn (corpse) (2183)

iḍ-, iṭ- put (375)
o·riḍ-, o·riṭ- listen (893)

(3e) $S^1l+t>S^2t$
co·l-, co·t- be inferior, fail (2936)

Irregular
iṛ-, iṭy- have sexual intercourse with (430)
maṇ-, mayṇḍ- shave (3888)
vey-, vedy- be burned, (broth) boils (4540)

a·g-, a·y-/a·n-/a·c- become (282)
o·g-, o·y-/o·n-/o·c- go (3734)

ig- (ir-), it- be, exist, be in a place (407)

KOḌAGU

(Nalknad dialect, unless otherwise indicated)

(1) $S^2=S^1+i$
tap-, tapi- escape, break (promise) (2498)
ëp- raise up (person), make to get out of bed (723)
ci·p- (Nalknad, Mercara) comb (1341)
ï·p- (Mercara) lower (426)
tup- spit (2725)
olap- wash (plates, pots) (839)
arïp- (Mercara) inform, tell (265)
pirïp- turn (cattle) in a different direction, send away, cause to disperse (3435)
urïp- blow (flute) (578)
ïḷïp- lower, get bullocks out from shed (426)
tëḷïp- wake up (tr.) (2825)

kabb- seize with wide-open mouth (dog, tiger, etc.) (1025)
pabb- (creeping plant) twines (3255)
tabb- put arms around (2543)
dumb- become full (2735)

namb- trust (2975)
olamb- put water into mouth, gargle and spit (839)
doḷamb- gurgle

kemm- cough (1634)
tïmm- sneeze (2740)
kumm- churn (1536)
tumm- (Mercara) sneeze (2740)

bat- go dry (tank, cow) (4355)
kat- burn with a blaze (intr.) (1014); wash (plate, hands) (1154)
pat- climb; be stuck (as with gum) (3320)
a·t- dry (tr., cloth) (346); become mature (349)
ba·t- take up in a handful, make food into round morsel for eating (4392)
ma·t- change (tr.) (3960)
pa·t- winnow (3311)
ta·t- lower, close (window, door) (2597)
et- arrive (693)
ket- cut (1624); gore (1625)
ke·t- (Mercara) take person into house (2312)
ne·t- hang (tr.) (2373)
de·t-/dë·t- (Mercara) drive away (2857)
në·t- lift (2380)
bit- sow (seed), scatter (4428)
bi·t- open out (tr., mouth of bag, knife) (4513)
ki·t- tear (1353)
ti·t- make to eat by thrusting food into mouth, feed (baby) (2670)
ot- press (859)
bot- fear, be frightened (4519)
kot- pick up with single sharp motion, (fowl) pecks (1740)
pot- cover completely (3686)
do·t- drive away (2857)
ko·t- fill by scooping (1847)
ut- ooze (648); untie (knot) (S74)
cut- wind around (intr., tr.), wander about (2238)
kut- thrust (with end of stick), gore (1429); thrust with fist (1536)
u·t- suck (2154)
bu·t- (Mercara) open out (tr., mouth of bag, knife) (4513)
kaḍat- take from one side or one room to the other (929)
naḍat- make to walk, get (ceremony) performed (2957)
barat- make to come (4311)
parat- spread (grain which is in a heap) (3255)
malat- turn with face up (tr.) (3880)
polat- spend night until dawn (3531); make to live happily (3716)
boḷat- grow (tr.) (4464)

taḷat- make weak, exhaust (2551)
paḍït- let lie fallow (3190); make to suffer (3191)
këḍït- extinguish, spoil, ruin (1614)
buḍït- make to let go, have released, release (4419)
koḷït- slip (noose, rope) onto (1788)

se·d- drink a deep draught (2310)
tidd- clear (drain), twist and clean (moustache), settle (details) (2659)
bi·d- (Mercara) wave (tr.), grind with grinding stones (4479)
podd- (god, evil influence) takes possession of man (3709)
o·d- read (886)
udd- rub (572)
gudd- pound with fist, box (1536)
porïd- get appointment (3729)
ëḷïd- write (725)
ma·nd- scratch (3944)
mi·nd- swim (3054)
pond- be raised, bounce (3696); be suited to, agree with (3709)
kuynd- (Mercara, Virajpet) feel prickly (S249)

pann- drizzle (3322)
kinn- tear into strips (1336)
minn- flicker, lighten (3994)

taṭ- touch, pat; ward off, strike off; (curse) affects (2466)
a·ṭ- make to move violently, drive (cattle) (290)
ka·ṭ- show (1209)
këṭ- tie, build (961)
nëṭ- give a sharp shake (intr.), (sleep) is suddenly broken (3119)
kïṭ- be got (1287)
nï·ṭ- stretch out straight (tr.), offer (3059)
tï·ṭ- rub, stroke gently (2678)
koṭ- tap, beat (drum) (1717)
poṭ- burst with noise (intr.) (3674)
no·ṭ- look at (3144)
kuṭ- pound (1391)
muṭ- bump against (4041)
puṭ- be born, (seed) sprouts (3501)
ku·ṭ- gather (people), join others with onself, insert (1562); sharpen (1566)
boraṭ- frighten and make to run in all directions (cattle) (4519)
urïṭ- roll (tr.) (571)
turïṭ- roll up (tr.) (2211)
bavṭ- bend (tr.) (4349)
cavṭ- step on (1973)
kuṇṭ- limp (1408)

a·ḍ- move violently, dance (290)
ba·ḍ- fade, wither, (face) is downcast (4377)
ma·ḍ- do (3931)
pa·ḍ- sing (3348)
ka·pa·ḍ- protect (1192)
në·ḍ- earn (3121)
të·ḍ- search for (2844)
o·ḍ- run (877)
bo·ḍ- beg (4548)
to·ḍ- dig (well, tank) (2927)
cu·ḍ- stick (flowers) in hair (2247)
du·ḍ- push away (2782)
ku·ḍ- join oneself with others, gather (intr.), be inserted, fit in (intr.) (1562)
tavḍ- feel one's way in the dark, search for in dark (2454)
tï·ṇḍ- touch (2680)
puṇḍ- squeeze (anything with liquid in it) (3440)
tuṇḍ- break (intr., thread, rope, flower stem, tip) (2712)
bavṇḍ- be bent (4349)
ñavṇḍ- squeeze (tr.) (2386)

ëṇṇ- say, tell (678)

ca·c- stretch out (hand) (2007)
ka·c- boil (tr.), melt (ghee) (1219)
mec- be pleased (3865)
gi·c- make a mark by scratching (1352)
muc- close (intr., tr.) (4025)

ma·j- (clothes) become soiled (3927)
bi·j- (Mercara) wave (tr.), grind with grinding stones (4479)
pu·j- do acts of worship (*DBIA* 274)
baraj- feel for (something) (3262)
miñj- be left over, remain (3962)
mu·ñj- suck (penis) (4130)

kak- vomit (909)
nak- lick (2945)
a·k- make to stay in a place (282)
ba·k- pour off water (from boiled rice) (4370)
ca·k- rear (child, young animal) (2003)
ka·k- call, invite, summon, take (person) with oneself (1658)
ta·k- lean (tr.) (2573)
me·k- mix thoroughly (tr.) (3852)
ni·k- put aside (3052)
ok- thresh by driving cattle around (784); flow, be carried away by stream, float away (849)

cok- be fat; cause intoxication (2333)
kok- be bent (1689)
uk- overflow in boiling (573)
cuk- grow fat, stout; be proud, restive, high-spirited (2333)
muk- dip under water (tr.) (4096); smear (mud, manure on ground) (4169)
puk- boil so as to loosen skin or husk (3540)
u·k- (Virajpet) comb (593)
bu·k- make to fall, pour (4457)
ju·k- sway (tr.) (2777)
nu·k- push (3083)
tu·k- hang (tr.), weigh (2777)
aḍak- pile in orderly fashion (70)
maḍak- fold (3796)
koḍak- shake (tr.), wag (tail) (1385)
oṇak- dry (tr.) (517)
karak- digest (1086)
nerak- groan (2365)
terak- shift without lifting (tr.) (2655)
ërak- let slip down throat slowly (439)
kalak- stir up, churn (1096)
ëḷak- make to leave a position, uproot, (god) possesses (shaman) (432)
badïk- live, live happily (4402)
oḍïk- sweep (506)
tirïk- turn around (tr.) (2655)
porïk- pick up (small objects) (3623)
urïk- melt (tr.) (569)
murïk- tighten (tr.) (4112)
molïk- press
kulïk- shake (tr.) (1501)
uḷïk- flay (636)

agg- (fire) becomes bed of coals (*DBIA* 5)
bagg- stoop, bend down (4371)
ogg- (child) wriggles on belly (2334)
mugg- swallow (3985)
nugg- enter by force or without permission, go through (into cave) (3076)
tirïg- wander, go about (2655)
ba·ŋg- become bent, slope (4371)
ta·ŋg- lean (intr.) (2573)
e·ŋg- (cock) produces a long note in crowing, lengthen a vowel in singing (746)
be·ŋg- (rain) clears (4543); cut (plantain trunks at wedding, as test of skill) (4571)
me·ŋg- be mixed thoroughly (3852)

ni·ŋg- go aside (3052)
puŋg- become slightly decomposed, fester slightly (3537)
ju·ŋg- sway (intr., person, snake, tree, baby in cradle) (2777)
tu·ŋg- hang (intr.) (2777)
aḍaŋg- be piled in orderly fashion so as to fill space, (fowls) roost comfortably (70)
oṇaŋg- become dry, heal (517)
teraŋg- move (intr.), shift, shift in one's seat (2655)
ëraŋg- (food, liquid) slips down throat slowly (439)
kalaŋg- be stirred up (1096)
malaŋg- lie down neglecting work (3875)
molïŋg- be pressed
kulïŋg- shake (intr.) (1501)

poṉṉ- swell (intr.) (3658)
muṉṉ- dive under water (4096)

kar- be digested (1086)
a·r- dry up (intr., cloth, stream) (346)
ja·r- (person) slips, (thing) is slippery (2048)
ka·r- vomit (1236)
ma·r- sell (3960)
na·r- smell (intr.) (2379)
pa·r- leap, fly, (flag) waves (3311)
ë·r- be more than enough, be extra; (poison, liquor) rises and affects (776)
kë·r- (Mercara) go up to house (2312)
se·r- join (intr.) (2312)
tir- turn around (intr.) (2655)
ci·r- answer back in a grumbling way (2169)
gi·r- make gash (1353)
ki·r- tear (1353)
or- fall asleep (606)
po·r- transport by pack-animal (3641)
ur- melt (intr.) (569)
mur- tighten (intr.) (4112)
u·r- thrust end of stick to ground while walking (650)
mu·r- disregard (words), be superior to (*DEDS* 3998)
tu·r- defecate (2796)
bevar- sweat (4516)

cell- throw away (liquid), scatter (grain) (1969)

a·ḷ- rule (341)
ëḷ- leave one's position, be removed from one's position (432)
tuḷḷ- make small jumps (2767)

mu·s- smell (tr.) (4000)

alas- become spoiled (curry, rice) (200)
guṇïs- calculate (Skt. guṇaya- to multiply>Ka. guṇisu to multiply, enumerate, calculate)
jams- utter (incantations) (*DBIA* 145)

(2) $S^2 = S^1 + nd$
aḍe-, aḍev-, aḍand- (gap) is stopped (73)
kaḍe-, kaḍev-, kaḍand- grind with mortar and pestle (957)
taḍe-, taḍev-, taḍand- be obstructed (2460)
oḍe-, oḍev-, oḍand- (pot) is broken (799)
bare-, barev, barand- fry (intr.) (4360)
pare-, parev-, parand- utter (3318)
nere-, nerev-, nerand- attain puberty (3049)
tere-, terev-, terand- thresh about on ground (2655)
tore-, torev-, torand- be wound round and round (2211)
bale-, balev-, baland- (eyes) becomes blurred
male-, malev-, maland- turn face upward (intr.) (3880)
nele-, nelev-, neland- (person) gets wet (3006)
jaḷe-, jaḷev-, jaḷand- (pliable stick) sways (2294)
paḷe-, paḷev-, paḷand- speak ill of (3297)
taḷe-, taḷev-, taḷand- become weak (2551)
boḷe-, boḷev-, boḷand- become full-grown (4464)
kuḍi-, kuḍiv-, kuḍïnd- (earth) shakes (1385)
pola-, polav-, poland- dawn (3531); live happily (3716)
ka·-, ka·v-, ka·nd- caw (1197)
no-, novv-, nond- pain (3143)
ku·-, ku·v-, ku·nd- crow (1551)

co·-, co·p-, co·nd- become red (1607)
kaḍa-, kaḍap-, kaḍand- cross (929)
naḍa-, naḍap-, naḍand- walk (2957)
koḍa-, koḍap-, koḍand- shake (body) (1385)
ara-, arap-, arand- make loud hoarse noise (312)
kara-, karap-, karand- milk (1166)
mara-, marap-, marand- forget (3897)
para-, parap-, parand- crawl (3255)
era-, erap-, erand- beg (400)
tora-, torap-, torand- open (2667)
ala-, alap-, aland- crave (200)
kala-, kalap-, kaland- knead (1092)
aḷa-, aḷap-, aḷand- measure (252)
poḷa-, poḷap-, poḷand- open (mouth) (3725)

(2a) $S^1i/V{\cdot}y/\check{V}y + nd > S^2iñj/V{\cdot}ñj/\check{V}yñj$
podi-, podiv-, podiñj- cover (tr.) (3686)

tudi-, tudiv- tudiñj- be praised (*DBIA* 212)
ceḍi-, ceḍiv-, ceḍiñj- break (intr.) with a crack (2072)
ïḍi-, ïḍiv-, ïḍiñj- (something built up or heaped) falls (366)
aṇi-, aṇiv-, aṇiñj- wear and enjoy (jewels) (98)
taṇi-, taṇiv-, taṇiñj- (thing) becomes cold (2473)
kĕṇi-, kĕṇiv-, kĕṇiñj- become entangled or caught, get stuck (994)
ari-, ariv-, ariñj- be strained (liquid) (176); find out (265)
kari-, kariv-, kariñj- be singed (1073)
mari-, mariv-, mariñj- roll (intr.), overflow, go up (steps) (3898)
tari-, tariv-, tariñj- bend to one side (intr.) (1950)
neri-, neriv-, neriñj- become twisted in an entangled fashion, (cloth) is wrung out (2387)
biri-, biriv-, biriñj- dismantle (house), open (jackfruit) (4438)
piri-, piriv-, piriñj- disperse (intr.) (3435)
tiri-, tiriv-, tiriñj- become known (2815)
tori-, toriv-, toriñj- pour (tr.) (2353)
uri-, uriv-, uriñj- burning sensation is felt (565)
ali-, aliv-, aliñj- dissolve (intr.) (213)
nali-, naliv-, naliñj- play (2988)
oli-, oliv-, oliñj- (fruit) drops from trees in large quantities (843)
poli-, poliv-, poliñj- bark repeatedly (3530); increase (intr.) (3716)
paḷi-, paḷiv-, paḷiñj- speak ill of, decry (2397)
tĕḷi-, tĕḷiv-, tĕḷiñj- (sleep) leaves one (2825)
ïḷi-, ïḷiv-, ïḷiñj- descend, get ready (426)
oḷi-, oḷiv-, oḷiñj- halt for the night, dwell (848)
poḷi-, poḷiv-, poḷiñj- break (intr., stick-like thing, tree) (3725)
kavi^{n}-, kavi^{n}v-, kavi^{n}ñj- turn face down (intr.) (1121)

a·y-, a·yuv-, a·ñj- choose (306)
ca·y-, ca·yuv-, ca·ñj- be straight (2007)
ka·y-, ka·yuv-, ka·ñj- become hot, boil (intr.), bask in sun (1219)
pa·y-, pa·yuv-, pa·ñj- dash into (place) (3362)
te·y-, te·yuv-, te·ñj- wear off (intr.) (2846)
ki·y-, ki·yuv-, ki·ñj- become rotten (1337)
me·y-, me·yuv-/me·v-, me·ñj- graze (4179)
be·y-, be·yuv-/be·v-, beñj- be warmed, burned, (rice) cooks (4540)

kay-, kayyuv-, kayñj- (time) passes (1142); be possible (1143)
mey-, meyyuv-, meyñj- (paddy) is pounded and well cleaned (3982)
kuy-, kuyyuv-, kuyñj- (hole) is bored (1469)
kuy^{n}-, kuyyuv^{n}-, kuy^{n}ñj- (Nalknad) feel prickly (S249)

(2b) S^{1}r/ll/ḷḷ/ḍ+nd>S^{2}nd/nd/ṇḍ/ṇḍ
pa·r-, pa·ruv-, pa·nd- ladle from one vessel to another; put on (clothes)
ne·r-, ne·ruv-, ne·nd- hang (intr.) (2373)

në·r-, në·ruv-, në·nd- rise up, come to view (3124)
të·r-, të·ruv-, të·nd- (man) becomes full-grown (2856)
bi·r-, bi·ruv-, bi·nd-, (Mercara) bu·r-, etc. (flowers) open (4513)
tï·r-, tï·ruv-, tï·nd- be used up, exhausted (2683)
to·r-, to·ruv-, to·nd- leak (2353)
mu·r-, mu·ruv-, mu·nd- (Mercara) disregard, disobey (*DEDS* 3998)
ta·r-, ta·ruv-/ta·v-, ta·nd- descend, (sun) sets (2597)

bar- (ba·), bap-, band- come (4311)
tar- (ta·), tap-, tand- give to 1st or 2nd person (2526)

koll-, kolluv-, kond- kill (1772)
poll-, polluv-, pond- stitch, sew (3720)

nill-, nip-, nind- stand (3043)

koḷḷ-, kovv-, koṇḍ- take (1788)

nï·ḍ-, nï·ḍuv-, nï·ṇḍ- stretch out (intr.) (3059)
boraḍ-, boraḍuv-, boraṇḍ- be thrown into confusion by fear (4519)
urïḍ-, urïḍuv-, urïṇḍ- roll (intr.) (571)
turïḍ-, turïḍuv-, turïṇḍ- be rolled up (2211)

(2c) $S^1ir+nd>S^2iñj$
ir-, ip-, iñj- to be in a place (407)

(3) $S^2=S^1+t$
poda-, podap-, podat- thatch (3686)
nena-, nenap-, nenat- think (3050)
aḍa-, aḍap-, aḍat- stop (gap) (73)
oḍa-, oḍap-, oḍat- break (a pot) (799)
poḍa-, poḍap-, poḍat- move quickly to and fro (3493)
ara-, arap-, arat- grind up (spices) with a roller stone (191); cut (266); (water) dries up, become emaciated (346)
bara-, barap-, barat- fry (tr.) (4360)
kara-, karap-, karat- become black (1175)
nera-, nerap-, nerat- fill (pot at Huttari festival), load (gun) (3049)
tera-, terap-, terat- make thresh about on ground (2655)
kora-, korap-, korat- bark (1496)
tora-, torap-, torat- wind round and round (2211)
bala-, balap-, balat- (eyes) are blurred
mala-, malap-, malat- turn with face up (tr.) (3880)
nela-, nelap-, nelat- wash (clothes) (3006)
kola-, kolap-, kolat- (plant) shoots against (1504)
pola-, polap-, polat- (Mercara) cover over (3686)
aḷa-, aḷap-, aḷat- sit down
jaḷa-, jaḷap-, jaḷat- make sway (pliable stick) (2294)
kaḷa-, kaḷap-, kaḷat- dig (1321)

koya-, koyap-, koyat- string (1809)
taye-, tayep-, tayet- level (field) (2026)
cave^{n}-, cave^{n}mp-, cave^{n}nt- chew (1927)
modï-, modïp-, modït- be sweet (*DBIA* 285)
aḍï-, aḍïp-, aḍït- approach (69)
taḍï-, taḍïp-, taḍït- obstruct; endure (2460)
ëḍï-, ëḍïp-, ëḍït- raise (723)
koḍï-, koḍïp-, koḍït- give to 3rd person (1708)
uḍï-, uḍïp-, uḍït-, put on (sari), wear (502)
puḍï-, puḍïp-, puḍït- (leg) swells (3494)
perï-, perïp-, perït- increase (intr.) (3613)
porï-, porïp-, porït- carry (3729)
boḷï-, boḷïp-, boḷït- become white (4524)
kuḷï-, kuḷïp-, kuḷït- cold feeling is (1523)
ka·-, ka·p-, ka·t- wait (1192)
o-, op-, ot- be suitable, consent (781)
to-, top-, tot- salute (2904)
mu·-, mu·p-, mu·t- grow up (4057)

(3a) S^{1}i/Vy/v̆y+t>S^{1}ic/Vc/v̆yc
cadi-, cadip-, cadic- cheat (1917)
madi-, madip-, madic- be lustful of the female (3835)
kodi-, kodip-, kodic- boil (intr.) with bubbling noise; kiss, love (1735)
udi-, udip-, udic- (sun) rises (*DBIA* 44)
tudi-, tudip-, tudic- praise (*DBIA* 212)
kani-, kanip-, kanic- throw
aḍi-, aḍip-, aḍic- (lightning) strikes (67)
baḍi-, baḍip-, baḍic- hammer, pound (4272)
kaḍi-, kaḍip-, kaḍic- bite (945)
paḍi-, paḍip-, paḍic- learn (*DBIA* 242)
ïḍi-, ïḍip-, ïḍic- knock over (something built or piled up) (366)
kuḍi-, kuḍip-, kuḍic- drink (1378)
puḍi-, puḍip-, puḍic- seize, catch, hold (3412)
këṇi-, këṇip-, këṇic- entangle, trap (994)
ari-, arip-, aric- strain (liquid) (176)
kari-, karip-, karic- singe (1073)
mari-, marip-, maric- roll (tr.) in a lying position (3898)
pari-, parip-, paric- pluck (3317)
tari-, tarip-, taric- bend to one side (tr.) (1950); chop into small bits (2562)
eri-, erip-, eric- (mouth) has burning sensation (694)
neri-, nerip-, neric-, wring (2387)
teri-, terip-, teric- totter (2835)
biri-, birip-, biric- make (rope) by twisting (3436); spread (leaves, blanket) (4438)

piri-, pirip-, piric- turn (cattle) in another direction, spread (leaves, blanket) (3435); make (rope) by twisting (3436)
kori-, korip-, koric- (snake) strikes, (rat) eats grain by cracking husk (1798)
pori-, porip-, poric- uproot (3707)
kuri-, kurip-, kuric- decorate; arrange (marriage) (1533)
muri-, murip-, muric- make a cut (4078)
ali-, alip-, alic- dissolve (tr.) (213)
bali-, balip-, balic- pull, snatch (4322)
oli-, olip-, olic- wash (clothes) (839); beat (fruit) from tree in large quantities (843)
poli-, polip-, polic- increase (tr.) (3716)
toli-, tolip-, tolic- peel, hatch (2937)
kaḷi-, kaḷip-, kaḷic- play (1158)
taḷi-, taḷip-, taḷic- sprinkle (water, grass) (2827)
tëḷi-, tëḷip-, tëḷic- laugh (2828)
oḷi-, oḷip-, oḷic- hide (intr.) (853)
poḷi-, poḷip-, poḷic- break stick-like object (3725)
toḷi-, toḷip-, toḷic- (Mercara) laugh (2828)
kuḷi-, kuḷip-, kuḷic- take bath (1522)
kavi^{n}-, kavi^{n}mp-, kavi^{n}ñc- turn face down (tr.) (1121)

me·y-, me·p-, me·c- graze (tr.) (4179)
te·y-, te·p-, te·c- wear off (tr.), smear (2846)
bey-, bep-, bec- cook (rice) (4540); keep, place (4565)

ay-, ayp-, ayc- send (39)
bay-, bayp-, bayc- (belly) hungers (4297)
kay-, kayp-, kayc- be bitter (1047); undo (1136); pass (time), perform (ceremony) (1142)
mey-, meyp-, meyc- pound (paddy) (3982)
oy-, oyp-, oyc- exhaust, finish (tr.) (848)
kuy-, kuyp-, kuyc- bore (hole), fly (bites) (1469); (thing) is hot
cuy^{n}-, cuy^{n}mp-, cuy^{n}ñc- (Nalknad) (fly, ant) bites
tuy^{n}-, tuy^{n}mp-, tuy^{n}ñc- (snake) hisses, (bull) snorts in anger (2894)

(3b) S^{1}r/l/ḷ^{1}/ḷ^{2}/ḍ+t>S^{2}t/t/ṭ/t/ṭ
per-, peruv-, pet- bear (child) (3622)
ter-, teruv-, tet- pay (penalty) (2833)
tï·r-, tï·p-, tï·t- use up, finish (2683)
co·l-, co·p-, co·t- become tired (2354); be defeated (2936)
kaḷḷ-, kap-, kaṭ- steal (1156)
kë·ḷ-, kë·p-, kë·ṭ- ask, hear (1677)
ï·ḷ-, ï·p-, ï·t- drag (427)
poḷ-, pop-, pot- fight (3708)

o·ḷ-, o·p-, o·t- have sexual intercourse with (904)
pu·ḷ-, pu·p-, pu·t- bury (3588)
u·ḷ-, up-, ut- plow (592)

ca·ḷ-, ca·v-, cat- die (2002)

paḍ-, paḍuv-, paṭ- lie fallow (3190); suffer; (something) hits, (thorn) runs in (3191)
këḍ-, këḍuv-, këṭ- be ruined (1614)
ïḍ-, ïḍuv-, ïṭ- drop, put down (375)
toḍ-, toḍuv-, toṭ- touch (2865)
buḍ-, buḍuv-, buṭ- release, let go (4419)
cuḍ-, cuḍuv-, cuṭ- burn (tr.) (2183)
oraḍ-, oraḍuv-, oraṭ- answer (557, 559)
moraḍ-, moraḍuv-, moraṭ- weep (4076)
poraḍ-, poraḍuv-, poraṭ- dress (well) (3751); go out, leave, start
naḍï-, naḍïp-, naṭ- plant (2958)

(4) $S^2 = S^1 + d$
*en-, *emb-, end- say so-and-so (737)
tin-, timb-, tind- eat (2670)

(4a) $S^1y + d > S^2jj$
bay-, bayyuv-, bajj- abuse (4566)
key-, keyyuv-, kejj- work (1628)
koy-, koyyuv-, kojj- pluck, harvest (1763)
poy-, poyyuv-, pojj- beat (3704)
ne·y-, ne·yuv-, nejj- spin (thread) (3103)

(4b) $S^1ṇ + d > S^2ṇḍ$
uṇ-, umb-, uṇḍ- eat meal (516)
ka·ṇ-, ka·mb-, kaṇḍ- see; seem, look so-and-so (1209)

(4c) $S^1ll + d > S^2dd$
gell-, gelluv-, gedd- win (1641)

(4d) $S^1ḷ^2 + d > S^2dd$
ba·ḷ-, ba·v-, badd- rule (4402)
ë·ḷ-, ë·v-, ëdd- get up (723)
bu·ḷ-, bu·v-, budd- fall (4457)

Irregular
a·g-/a·-, a·yi-/a·n- become (282)
po·-, po·p-, po·yi-/po·c- go (3734)

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NOTES

*This paper was originally prepared and partly prepublished for the International Conference-Seminar on Tamil Studies, which was held at Kuala Lumpur in April 1966; a small part of the conclusions will appear in the proceedings of the conference. In its present form it owes much to the fruitful comments of Professors Bh. Krishnamurti and William Bright, Dr. P.S. Subrahmanyam and Mr. Gérard Diffloth, none of whom however necessarily agrees with all my methods or conclusions.

Since so much of the subject-matter of the paper is my field data, which are available so far only in *DED* and *DBIA*, and then only in part, the opportunity is taken of publishing these data along with the descriptive and historical analysis; I am grateful to the editor for giving me this opportunity.

1. On the symbols used for phonemes of PDr., PSDr., and Tamil, see 2.1.

2. If one restricted one's view to SDr, alone (in the sense of this paper, i.e. not including Telugu and Tuḷu), one would conclude that the intransitive/transitive contrast carried by the past tense suffixes *-nd- and *-t- was to be reconstructed for PSDr. and that Kannaḍa had lost it because of the loss of contrast of these two suffixes through the spread of the Kannaḍa suffix -d-. Even so, the absolute failure of Kannaḍa (at least, so far as I have searched the material) to show even the merest survival of such a contrast in its voice system introduces a warning note that this may not be the historical solution. P.S. Subrahmanyam, in his thesis (§§1.84-6), has undoubtedly found the correct solution, even though I am forced to disagree with him in some points (e.g. his inclusion of Telugu and Tuḷu in SDr.) and have attempted a fuller treatment of the Kannaḍa suffix -d-. His view takes in the whole of the Dravidian family. He finds that, even though on the basis of some forms throughout the whole family (even including Brahui) the past suffix *-nd- as well as the suffix *-t- must be constructed for PDr., nevertheless the adhesion of this pair of suffixes to the intransitive/transitive contrast is found only in that part of SDr. including Ta.-Ma., To., Ko., Koḍ. Therefore, this must be taken as an innovation that was developed in these languages alone, Kannaḍa not having shared in the innovation. He correctly observes that it must be based on the parallel contrast in phonemic features (e.g. *-ŋg-: *-k-) in the derivative suffixes of voice (i.e. the intransitive/transitive contrast), and on the similarity of the causative suffixes *-t- and *-p- to the past tense suffix *-t- and the parallel future suffix *-p-.

3. For details see the 1958 paper, p. 41. For Tamil, Sathasivan's 1956 thesis, chapter 18, and his 1958 paper.

4. My thinking on the position of Koḍagu has been much clarified by an exchange of views with P.S. Subrahmanyam.

5. And moreover, it yields easier comparative statements, since Tamil-Malayalam morphemes now have phonemes closely paralleled by those of the equivalent morphemes of the other languages, and PSDr. and PDr. have the same symbols as those used for all the languages.

6. It does not matter for our present purpose whether one interprets ṛ for OTa. and in Dr. reconstruction as a stop or a trill. The use of g for several allophones, not all of which are of voiced stop nature, should not be disturbing.

7. The type of solution given by Lisker for Tamil can be utilized here. In his terms, a morphophoneme X is set up with meaning 'transitive'; its place is after the stem (intransitive) and before the tense suffix. This would involve in Toda the statement: *ïx-X-θ->ïxt-, i.e. -X-θ>-t-.

8. The morphophonemic statement y+t>c is also needed in explaining Tü̱cwï·, the proper name of the pen at the male funeral place at To·ṛo·ṛ mund; twï· is the word for 'pen' and there are at this funeral place a path (pï̱) called Tü̱ypï̱ and a pool (kö·ṛ) called Tü̱ykö·ṛ: i.e. tü̱y+twï·>tü̱cwï·. Also tü̱co·w 'center plank in front wall of house or

dairy, in which door has been cut', from tüṯy- 'to make hole' (*DED* 2907) + to·w 'plank' (? *DED* 2598).

9. This use of two r morphophonemes, one dental (or post-dental) and one alveolar, is backed up by some phenomena in nouns that require the morphophonemic statement r + t > t (*Kota Texts*, grammatical sketch, § 34). This can be taken to be internal reconstruction, and can then be compared immediately with Tamil-Malayalan and Toda phenomena, and less immediately with phenomena in languages further removed, to achieve comparative reconstruction. The noun example *loc. cit.*, ki·r (oblique stem ki·t̲-) 'loose bosom and waist of woman's clothes when they are tied for working' will be compared in *DEDS*, entry S227, with the Tuḷu items girpuni, gidupuni, giduruni. gid(u)runi 'to loosen, untie, break, pull down; to be loose, be pulled down', gidpu 'loosening', in which alternation of r and d results as the reflex of the alveolar *ṟ.

10. A phonemic statement for Koḍagu will recognize that voiceless stops and the affricate c have two major allophones each, based on quantity. After a short accented vowel (i.e. in a word's first syllable) a voiceless stop is long and heterosyllabic; elsewhere within a word, i.e. after a long accented vowel or after an unaccented vowel, it is shorter and the syllabic division precedes it; e.g. matï [mattï] 'ax', ma·tï 'change!' This statement covers hundreds of examples. The only exceptions to it, viz. with a short voiceless stop after a short accented vowel, are so rare that they may be covered by the use of special symbols; e.g. [kate] 'story' (a borrowing ultimately from Sanskrit) contrasts with [katte] 'donkey', and the two may be written respectively: [kate] as kaTe and [katte] as kate. Other consonants do not show the same complementary distribution with regard to quantity as do the voiceless stops; i.e. long and short consonants otherwise are in contrast after short accented vowels in considerable numbers (though in other positions they are distributed as are voiceless stops), and are treated phonemically as single and double consonants respectively. For voiced stops and the voiced affricate j, this contrast has little functional yield, but it should be recognized; e.g. mudi 'old', uddi 'rubbing'; kaḍi 'bite', kaḍḍi 'small stick'. In *DED* the allophones of voiceless stops were distinguished in the writing, as e.g. t and tt. However in the 1938 article the present phonemicization was followed in the Koḍagu material given.

11. In these instances jj always follows a short vowel. It is in complementary distribution with short j following a long vowel, and consequently is structurally parallel to the suffix -t-, which can be written single in all instances because of the phonetic solution adopted for voiceless stops (given in fn. 10). Unfortunately, there are a few contrasting examples of short j after a short vowel (as for all other voiced stops).

12. The morphophoneme ḷ², arrived at in description, serves as an internal reconstruction. When the etymologies are examined, most of them point clearly to PDr. *ṟ = Koḍ. ḷ², and consequently to the historical statement: *ṟ + *t/d > Kod. t/d. This statement accounts also for such etymologies as: Ta. kaṟudai, Ka. kaṟte, katte, Koḍ. kate 'donkey' (*DED* 1149); Ko. kaṛt- 'to wash', Koḍ. kat- id. (cf. Ta. kaṟuvu id.; *DED* 1154); Ta. toṟu, toṟud- 'to worship', Koḍ. to-, tot- 'to salute' (*DED* 2904); Ko. maṛt 'ax', To. moʒt id., Koḍ. matï id. (cf. Ta. maṟu id.; *DED* 3889).

13. The language dealt with is essentially the older language as represented in Kittel's grammar and dictionary. However, the use of these sources entails some difficulty, in that it is not always easy to achieve a chronology for the variant forms given. The disentangling of philological details and the achieving of a lucid historical grammar is still a desiderandum for this language, in spite of the work that has been done on the inscriptions in recent decades. My account of the past stem cannot be all-inclusive, because of the difficulties with the reference books. The *DED* details on the past stem are not complete. They have been supplemented from a list produced in my seminar by Sri K. Doraswami some years ago.

14. Narasimhia has a chronologically oriented partial statement (pp. 94-5), as does D.N. Shankara Bhat (p. 68). Complete statement will also have to be combined with the treatment of the remaining clusters of nasal stop (e.g. *nṛ, which becomes nd, *mb, etc.). And

it will be necessary also to explain the alternative voiceless and voiced stops after nasals (e.g. nd, nt).

15. P.S. Subrahmanyam 1963, § 2.77-8, and id. 1964.

16. We should not think of *y + *nd > *ñj, since in etyma where *ñj is concerned, the Toda reflex is ẓ, and this plus the Toda past suffix y yield j; e.g. *DED* 51 *oẓ-*, oj- 'to fear' (Ta. añju, añji-); also *DED* 1697, 3054, 3946. This should yield a relative pre-Toda chronology; loss of nasal from nasal plus stop preceded palatalization of dental by preceding *y.

17. This analysis follows Kittel's grammar (he did not list kīṟ there). It is obscured somewhat in his dictionary by the analogical and other developments that produce, for example, a new S1 either with short vowel or with long vowel and final -u. In the dictionary kīṟ, kīṟu are given past stems kīṟd-, kīrt-, kiṟt-, kitt-.

18. See Emeneau 1962, p. 12, § 2.16. —Of the other two Kannaḍa verbs, kīṟ, kīṟd-/kiṟt- is paralleled by Tamil forms with long and short vowels, kīṟ, kīṟnd- and kiṟi, kiṟit- (since the short-vowel form has the derivative suffix -i-, it is not entirely parallel to the Kannaḍa short-vowel forms); otherwise, short vowels only are found in the etyma. The verb āṟ, aṟd-/add- has no parallels with short vowels in any of the other languages, except the Tamil noun aṟuvam 'depth, pit, deep sea' (so correct *DED*).

19. Krishnamurti, *TVB* pp. 449-50, entry 927.

[19a. But see now P.S. Subrahmanyam, *Dravidian Comparative Phonology* (1983), pp. 355-6.]

20. The vowel a in the past tense of the Koḍagu *ay- class needs explanation. It is at present still uncertain what *-aynd- should yield in Koḍagu. When this is a first syllable, as in the word for 'five', we find palatalization of the dental and loss of y, i.e. añjï 'five', and if the verbs in (2a) are any guide for non-initial syllables, we should expect either -añj- or -ayñj-, or, considering that *ay in this *ay-class of verbs otherwise appears as -e-, -eñj-. -and- seems phonologically impossible (cf. also nouns in *-ay > -e, with dative -ekï, loc. -elï, etc.), and is in all probability analogically derived from the *a-class—an isogloss with Kannaḍa!

21. The Tamil entry is to be corrected in *DED*, as is also the notation for Ta. paṟa in *DED* 3311.

22. By P.S. Subrahmanyam 1963, § 2.96. I do not agree with him that the verb *er- in *DED* 702 can be directly connected with *ir- and that consequently Parji er- (eñ-) provides evidence for a past with -nd- (palatalized to *ñj which > ñ): see *Brahui and Dravidian Comparative Grammar*, § 3.24.

23. In my 1945 paper, p. 190.

24. The oblique stem forms are stated incompletely and perhaps inexactly; the data at hand do not allow exact statement.

25. This is remarkably like the state of things in Kota, viz. 1pl. nom. a·m, oblique exclusive em-, inclusive -am. But I cannot make a connection between Kota and 10th century Kannaḍa.

26. So at least I recorded; the failure to find the distinction was not for lack of trying. Cole (p. 15) also records the free variation. The verb does not have the exclusive-inclusive distinction.

27. It should be noted that Koḍagu has 1sg. na·/na·nï, but oblique en- and nan- in free variation (the squared derivational result given by Krishnamurti, p. 194, § 7). The two forms en- and nan- are a perfect basis for eŋga and naŋga. It should be noted, however, that Malayalam has two oblique forms for the exclusive, viz. eṅṅaḷ- and ñaṅṅaḷ-, and that Tuḷu has exclusive eṅkuḷu. Many isoglosses connect Koḍagu with Malayalam and/or Tuḷu, and this looks suspiciously like such an isogloss.

28. Mr. Diffloth has been extremely kind in calling to my attention his material and in giving me permission to use it. He must not be held responsible for my interpretation. The stimulus of his material has led me to discover three previously overlooked pairs of

verbs in my own fieldnotes. Notation is uncertain in both our recordings. It is not even certain that we recorded the same dialect.

29. Diffloth records: maraduttu 'it got uprooted', maratte 'I uprooted it'.

30. The transcription is as in my 1939 paper, ë being e with the strongest degree of retraction. Diffloth's transcription is: bēduttu 'it grew', bētte 'I grew it'.

31. In the 1939 paper I recorded: káyta 'he spent (time)', káy 'spend (time)!', á being a with some, but not the strongest, retraction.

32. It is assumed for Toda that the lost vowel of the stem formative was the same as that in Badaga, unless there is reason to judge otherwise.

33. Rivers, pp. 721-30.

34. [A few additions and corrections are made without further notice.]

Chapter VII

SOME SOUTH DRAVIDIAN NOUN FORMATIVES*

Dravidian philology and comparative grammar have not yet reached the stage when the student can go to a convenient set of handbooks when he wishes light on points of morphology. Particularly at issue in this paper are questions of the form, meaning and spread throughout the languages of several noun derivative suffixes. No exact statement can be found on any one of them, not even on the philological facts about their occurrence in the literary languages. My collectanea are far from complete. Most of what I know is already contained in *A Dravidian Etymological Dictionary* (abbreviated *DED*), either in its 1961 form or in the supplement that is now being prepared (*DED* entry numbers are given below for all items contained therein). Some of the interpretation of the Toda data results from intensive study of my field material in the last few years. It is thought that publication of the collected data on these suffixes may save some effort in future for scholars who are concerned with noun derivation.

Kannaḍa *-kuḷi*, *-kuṇi*, (also one Toda and one Tamil item)

Kittel's *A Grammar of the Kannaḍa Language*, p. 206, lists the suffix *-kuḷi*, *-guḷi* as forming masculine, feminine, and neuter nouns, i.e. presumably both agent nouns and action nouns. These formatives and the examples are those of the ancient grammatical texts, Śabdamaṇidarpaṇa and Śabdānuśāsana (13th and 17th centuries A.D. respectively). Not all the examples are listed in Kittel's *A Kannaḍa-English Dictionary*; a few also appear there that are not in the grammar. That the suffix continues in use down to the present seems to be guaranteed by R.C. Hiremath, *The Structure of Kannaḍa*, p. 100, for the Dharwar dialect.

The following examples from Kittel's *Dictionary* are found in *DED*:

240 *aṟukuḷi* 'an easily crying or fretful person': *aṟ(u)* 'to weep, cry'.

290 *āṭa(ṅ)guḷi* 'player, gambler, dancer'; *āḍukuḷi*, *āḍuṅguḷi* 'person addicted to play': *āḍu* 'to play, etc.', *āṭa* 'play, etc.'.

306 *āy(i)kuḷi* 'collector of alms, beggar; choosing, selecting, picking up': *āy(i)* 'to collect, gather'.

877 *ōḍukuḷi* 'a runner': *ōḍu* 'to run'.

1536 *kuttuṅguḷi* (also read as *kuttaṅguḷi*) 'person engaged in beating': *kuttu* 'to beat'.

1537 *kuṟukuḷi* 'a detractor': *kuṟu* 'smallness'.

Indian Linguistics 27 (Meenakshisundaran Felicitation Volume, Part I), 21-30 (1966).

2039 *sālaṅguḷi* 'person who is wont to contract debt': *sāla* 'debt'.
2933 *tōkuḷi* 'act of dipping or steeping': *tō* 'to be dipped in; to dip, steep'.
3708 *pōrkuḷi* 'wrestler; wrestling, fight': *pōr* 'to fight, wrestle'.
3866 *marukuḷi* 'bewilderment': *maruvu* id.
3897 *maṟukuḷi* 'a forgetful man': *maṟe* 'to forget'.
3635 *pēṅkuḷi, hēkuḷi* 'demon; madness, fury': *pē* 'madness'.

To these should be added *lañcaṅguḷi* 'man who takes bribes': *lañca* 'bribe', the basic form being a borrowing from Sanskrit.

Of the examples, three denote both agent and action (306, 3708, 3635), eight only agent (240, 290, 877, 1536, 1537, 2039, 3897, *lañcaṅguḷi*), two only action (2933, 3866). Six seem to be derived from nouns (290 [*āṭa(ṅ)guḷi*], 1537, 2039, 3635, 3866, *lañcaṅguḷi*); the rest are derived from verbs.

HIREMATH defines *-guḷi* as 'that which has an excess tendency' and gives as examples *āṭaguḷi* 'a boy who is always playing at the cost of other things' and *lancaguḷi* 'one who is practising bribery'.

Only one example of this suffix has been found in another language, viz. Toda *puːtxuṯy* 'a cloak': *puːf-*(*puːt-*) 'to wear a cloak'. These items are recorded in *DED* 3577 with a query; the query is necessitated by the doubt whether the verb can be connected with the other entries, for which a PDr. base **pūṇ-* is to be reconstructed. KRISHNAMURTI (*TVB*, etymological index, No. 840) compares Ta. *puṉai* (wrongly noted as *pūṉai*), Ma. *punayuka* (which are in *DED*, 3560, with a cross reference to 3577). He suggests reconstruction of two bases **pūṇ-* and **pūn-* (this latter being a morphophonemic possibility, though not attested as such), with a possibility that **pū-* is the base and that the two nasals are suffixes. The base **pū-* would explain the Toda forms very well, and would of course make them primary (perhaps even archaic) in comparison with all the formations in the other languages. [For the occurrence of the short vowel in the second syllable of *puːtxuṯy*, see *Toda Grammar and Texts*, p. 26, §1.6.6.2.]

Beside *-kuḷi* Kannaḍa also has *-kuṇi* in one set of words, viz. the 'demon' words (*DED* 3635), which show both *pēṅkuḷi* and *pēṅkuṇi*. The only Tamil item that has been found which is relevant to this section (the *Tamil Lexicon* may well have more which escaped notice) has *-kuṇi*, viz. *aṟukuṇi* 'tearful person, one who is always crying', which is parallel to Ka. *aṟukuḷi* (240; see above); it is recorded as 'colloquial', and nothing more is known about such a Tamil formation.

Ta. *-talai*, Te. *-dala*, Ka. *-tale*, To. *-tas̲*, *-θas̲*

Verbal nouns with suffix *-tal*, *-ttal* are described in ARDEN'S *A Progressive Grammar of Common Tamil* (4th ed.), pp. 219-21. What is essentially a rule of thumb for the formation is given, viz. *-tal* for verbs that have presents with *-k-*, *-ttal* for verbs that have presents with *-kk-*; a perhaps better statement would apportion the two forms to verbs that have futures with *-v-* and *-pp-* respectively, since the so-called 'middle' verbs, which have presents with *-k-*

but futures with *-p-*, are in part irregular in this formation. ARDEN's statement is probably untrustworthy in many details, since VINSON, *Manuel de la langue tamoule*, p. 56, seems to indicate that *ceytal*, which ARDEN gives with meaning 'doing' (verb *cey* 'to do'), is rather a formation with *-al* from the past stem and has the meaning 'act of having done' (in contrast with *ceyyal* 'act of doing'). The last word has certainly not been said on this formation, and we should hope to receive aid from Tamil philologians and linguistic historians of the language.[1]

Whatever the correct statement may be, it seems that a further extension of this suffix (or suffixal complex) by *-ai* is found occasionally in Tamil. One example only is known to me of a verbal derivative, and 'occasionally' may be exaggeration or mis-statement. The word is *viṭutalai* 'rest, release, deliverance, liberty', i.e. an action noun derived from 4419 *viṭu* 'to leave, release, liberate, etc.'. Caldwell, p. 551, lists this and treats it in a footnote as *viṭutal-ai*; it is the only word of the kind that he does list.[2] This word is also recorded for Malayalam, *viṭutala* 'release' (alongside *viṭutal* 'permission, holiday').

Moreover, Telugu has *viḍudala* 'leaving, release, liberation' (:*viḍu* 'to be loosened, separate', *viḍucu* 'to leave, release, liberate, etc.'); *viḍidala* 'halting place' may be the same formation with *i* in the second syllable by assimilation to *i* in the first. This is only one of a small selection of similar formations in Telugu recorded in *DED* from the larger number of the dictionary:

781 *oppudala* 'assent, consent': *oppu* 'to consent, agree, etc.'.

2655 *tirugudala* [so correct *DED*] 'a turning back': *tirugu* 'to turn, turn back, etc.'

2801 *tegudala* 'termination, completion': *tegu* 'to be finished, ended'.

Kannaḍa has very few examples of this formative. One (a new entry in the *DED* supplement) is *kaḍitale* 'shield': Ta. *kaṭi* 'protection, safeguard, defence', *kaṭikai* 'shield'; on the face of it the basic element is a noun, though a verb **kaṭi* 'to protect' may, if necessary, be invoked. 28 *agundale* 'greatness, superiority' is very dubious in its formation, and its connection with formations of the shape **aggaḷ-* is queried in *DED* in spite of identical meanings; [see now *DEDR* 8].

The four languages Kannaḍa, Tulu, Kota, and Toda have words meaning 'darkness' with this formative (1073b). Ka. has *kartale*, *kattale*, *kattala* (*kattal* may show the shorter suffix or may be a back-formation from the longer forms). The first of these items looks as if the derivation were from *kar-*, *kār-* 'black'. However, *kaṛtale* introduces an element of doubt, since it either could be an example of the misformation of *ṛ* forms from *r* forms,[3] or could be in fact a derivative of *kāṛ-* 'blackness' (1253). The set *kaṛgu*, *kargu* 'black' does not help in deciding since it shows exactly the same ambiguity, alternation of *r* and *ṛ*. The inclination to group short-vowel forms, not with the long-vowel forms of 1253 (Ta., Ka. *kāṛ*, To. *ka·ṛ*), but with the short-vowel forms of 1073a (e.g. Ta. *karu*, *kari*, *karuku*, etc.) cannot be yielded to *tout court*, since we do not yet know in detail how long-vowel and short-vowel

allomorphs are related in nouns, even though the relationship in verbs has been clarified (by KRISHNAMURTI in *TVB* and *JAOS* 75.237-52).

The 'darkness' forms in the other three languages present the problem, at present insoluble, whether they are not, most of them, borrowings from Kannaḍa, or, in the case of the Nilgiri languages, from Badaga (originally a Kannaḍa dialect). Toda *kaštal* might not be a borrowing (it was taken to be probably not a borrowing in *TPS* 1957-58), but *l* instead of *s̲* speaks for its being borrowed. If To. *š* represents *r* or *r̲* of a word borrowed from Kannaḍa, the borrowing should have been early, i.e. before *rt* or *r̲t* became *tt* in Kannaḍa; according to A. N. NARASIMHIA, *A Grammar of the Oldest Kanarese Inscriptions*, pp. 92-5, the assimilation had been completed in inscriptions by the end of the 13th century. The chronology and the general solution for *kaštal* are still highly uncertain. To. *katal* is very probably a borrowing, as are Kota *katal*, *katalg*,[4] and Tulu *kattale*.

A set of forms found in Kannaḍa, Koḍagu, and Tulu in *DED* 4255 look as if they might belong here, but are in fact compounds with **talai* 'head, hair'. They are Ka. *baytale* 'parting of the hair', Koḍ. *bavtale* id., Tu. *baktalè*, *bagutalè* 'parting of the hair by combing'. The first member goes with Ta. *vaku* 'to separate, divide', Ka. *bagi* id., and the compound is 'hair which is separated or parted'.

In Toda the continuant form of this suffix is *-tas̲*, *-θas̲*, found in four words. *kaṛθas* means 'first-born' in the phrases *kaṛθas̲ mox* 'first-born son', *kaṛθas̲ xuːx* 'first-born daughter'. The phrase *kaṛθas̲ fiːr̲ oːx-* 'to become pregnant for the first time' is probably, more literally, 'to become pregnant with the first-born'. The only plausible etymology is with the items in *DED* 943, such as Ta. *kaṭāri* 'heifer, young cow that has not yet calved', Ma. *kaṭacci* 'heifer', Ko. *kaṛc naːg* 'buffalo calf between two and three years (i.e. that has not yet calved)', Ka. *kaḍasu*, Tu. *gaḍasu* 'young cow or buffalo that has not yet calved', Kui *kṛai* 'young female buffalo or goat'. The Toda word, then, denotes 'one who has not had children before, but is now having a child for the first time'. [But now *DEDR* 1136, with Tamil *kaṭuñcūl* 'first pregnancy', etc.]

The word *kwaṛtas* 'adolescent girl, young adult woman' is to be connected with 1537 Ta. *kuṟu* 'short, etc.', especially those items that mean 'small' or, even more specifically, 'young', e.g. Te. *kuṟṟa* 'child, boy'. The word *moxθas* 'adolescent boy' goes with 3768 Ta. *maka*, To. *mox* 'child, son, daughter', Ka. *maga* 'son', etc.

Toːṛθas̲ 'the higher-ranking of the two moieties of the Todas' clearly contains *toːṛ*, a difficult word. The latter is found in one sentence in a story of a culture hero: *toːṛ tüːs̲ wïḍskaː* 'has the man quit sleeping?'. Here *toːr̲* is probably to be more accurately translated 'important man', since in songs it is used in phrases referring to important (or, official) non-Todas (including, formerly, Englishmen). Otherwise, the meaning is '(patrilineal) clan or clans; people of the clan, especially of the clans of the higher-ranking of the two

moieties; the higher-ranking moiety, otherwise called *To·r̲θas̲*; the Todas, in contrast to the Tamilians'. The morpheme *to·r* is also found in *To·ro·r*, the name of the chief village of one of the clans of the *To·rθas̲*; this is literally 'the place (*-o·r*) of the *to·r*', but whether the latter here means 'important man' or 'clan' is not known. The other Nilgiri community, the Kotas, speak of *ta·d̲ nay* 'the ghee brought by Todas of the proper clan to the Kota village ceremony'; they refer to a Toda man of the division that includes the Toda clans of To·r̲o·r̤ and Niry as *ta·r na·r̤o·n* 'a man of *ta·r na·r*,' the latter phrase being equivalent to the Toda village name *To·ro·r*. Otherwise, an etymology in non-Nilgiri languages can be found only with a fair degree of probability, but not with complete certainty. The supplement to *DED* will put the words with 2037(a) Ta. *cāl* (*cāṉr-*) 'to be abundant, full, suitable, great, noble'; *cāṉrōr* 'the great, the noble' (the other languages that have etyma have the meanings 'to be able, capable, sufficient, enough'). The phonology for Toda is satisfactory: **c-*>To. *t-* (see *BSOAS* 15.98-112), **ā*>To. *o·*; **l* and **r* are morphophonemically related, and in addition Ko. *d̲* represents **nr* (i.e. Ta. *nr*); the Kota initial *t-* must be the result of borrowing from Toda.[5]

From these Toda data it seems impossible to find a meaning for the Toda suffix. However, the remainder of the material yields a use as action noun derived from verb, and as abstract noun (the 'darkness' words). The Toda words are all derivatives from nouns, and it is possible to think of them as abstracts, which are then used to denote persons (cf. Skt. *devatā-* 'state of being a god, a god', or English *divinity* or *youth*). The first three can be thus derived rather transparently ('state of having not had offspring before'>'one who has not had offspring before'). *To·rθas̲* is more difficult, only because it is uncertain with which of the meanings of *to·r* to start. Is it 'state of being important persons'>'the higher-ranking moiety'? Or is it 'state of being (or, having) clans'>'the moiety with clans'? The latter is certainly a possibility, since it is said of the people of the other moiety that 'they do not have *to·r*', which means, not that they do not (at present at least) have clans which are entirely parallel structurally to those of the To·r̲θas̲, but that in the system of sacred names (*kwasm*) there are two sacred names for the people of each of the To·r̲θas̲ clans and none for the people of the clans of the other moiety.[6] No other evidence is at hand, and the derivation of the meaning of *To·rθas̲* must probably be left uncertain.

Ta. *-uḷ*

The Tamil derivative suffix *-uḷ* was recognized by CALDWELL, p. 552, but the two examples he gave are unsatisfactory in meaning (see below), and I have been unable to find a treatment elsewhere. A list of my collectanea may be useful.

All, with one exception, are action or abstract nouns; the exception (*Kaṭa-vuḷ*) is an agent noun. They are about half and half derived from verbs and from nouns.

9 *akaluḷ* 'width, expanse, greatness, etc.': *akal* 'to spread, widen, extend, etc.'.

397 *iyavuḷ* 'leadership, god, way': *iyavu* 'way, leading' (if a verb **iya* is at the basis of both nouns, it is not in the record; cf. *kaṭavuḷ*: *kaṭa*).

929 *kaṭavuḷ* 'god' (who transcends speech and mind): *kaṭa* 'to traverse, cross, exceed, excel, etc.'.

1628 *ceyyuḷ* 'action': *cey* 'to do, make'.

3362 *pāyttuḷ* 'a spring, leap, etc.': *pāy* 'to spring, leap, flow, etc.' (*pāyttu* is the transitive verb 'to conduct water, etc.').

4007 *mokkuḷ* 'flower-bud': *mokku* id.

4412 *vikkuḷ* 'hiccup': *vikku* 'to hiccup'.

4431 *viyaluḷ* 'wide, open space': *viyal* 'greatness, width, etc.'.

4464 *viḷaiyuḷ* 'produce, crop, maturing': *viḷai* 'to be produced, mature, ripen (as grain)'; *n.* = *viḷaiyuḷ*.

4540 *veppuḷ* 'heat': *veppu* id. (the underlying verb *vē-* [*vent-*] has no stem *vepp-* in the paradigm).

Alongside 4008 *mokkuḷ* 'bubble' there is no underlying form; Tulu shows *mukuḷi* id., which seems to contain *-uḷ-* plus *-i*.

Kannaḍa has 4011 *mukkuḷ* 'mouthful of water for rinsing the mouth, rinsing the mouth, cleaning the teeth' (also *mukkuḷe* id., and Tulu *mukkuḷi*, *mukkuli* 'mouthful of any liquid'). The underlying form is the verb Ta. *mukku* 'to eat in large mouthfuls', Ka. *mukku* 'to eat by putting food into the mouth with the hollowed hand and gobbling', Tu. *mukkuni* 'to gobble', Kui *muka* (*muki-*) 'to cast food into the mouth with the hand' (cf. *mukal* 'mouthful' and *mukal giva* 'to rinse out the mouth, take a mouthful, gargle'). Ka. *mukkuḷ* must be a derivative with *-uḷ* from this verb in the specialized meaning seen also in Kui in another derivative.

No other Kannaḍa forms have been noted. Its equivalent of Ta. *kaṭavuḷ* 'god' is *kaḍavaḷ*, suspiciously similar but seeming to show *-aḷ*.

CALDWELL takes *poruḷ* 'thing, matter, property' (and other meanings, e.g. 'meaning', which make it an exact equivalent of Skt. *artha-*; *DED* 3711) to be a derivative of *poru* 'to join (*tr.*), unite, combine, reach, extend' (*DED* 3709). The connection seems *ad hoc* and implausible; it could only be achieved through the meaning 'to be suitable, fitting' of some of the cognates of *poru*, a meaning which overlaps with one of the meanings of Kannaḍa *puruḷ* 'fitness, propriety, that is true or good, meaning, power, strength'.

CALDWELL'S other example is *aruḷ* 'grace, favour, benevolence, order, command' (*DED* 190). This word looks indeed as if it were a derivative of a base *ar-* (the verb *aruḷ* 'to be gracious to, etc.' shows by its past stem *aruḷi-* that it is a derivative from the noun). Such a base *ar-* can hardly be, as CALDWELL suggests, that of *aru* 'rare, precious, which is difficult' (*DED* 184); the meanings are different. Nor can CALDWELL'S suggestion of a connection with *aru* 'to trickle down' be taken seriously; no such verb is given in *Tamil Lexicon*, and the nearest equivalent is *aruvu* 'to spring out and gently flow down'

(*DED* 189). *DED* suggested connection of *aruḷ* with the items in 323: Ta. *ārvam* 'affection, love, desire, devotion', Ka. *arume*, *arame* 'love, affection', Te. *aruvamu* 'eagerness, fondness', *armili* 'fondness, affection, desire'; to these are now to be added in the supplement: Tu. *arti* 'fondness', Te. *ariti* 'love, affection', and Ka. *abbara* 'desire, craving'. The Ka., Tu., and Te. items here have a base *ar-* (presumably derived from the *ār-* which is seen in the Ta. item). The meaning connection with *aruḷ* is seen in 190 in Te. *arulu* 'tenderness, affection, fondness'; development either from or to 'favor, benevolence' is very easy.

L.V. Ramaswami Aiyer, *Indian Linguistics*, vol. I, part 1, p. 49, noted the occurrence of *-uḷ* as a formative suffix. He was more interested in trying to establish a connection with the verb *uḷ* (*DED* 599) and the noun *uḷ* (*DED* 600), which still seems somewhat premature. The examples that he gives of the formative suffix are *poruḷ*, *kaṭavuḷ*, *aruḷ*, *iruḷ*, *maruḷ*.

The word *iruḷ* 'darkness' (*DED* 2102) is derived, as he implied, from *ir-* 'black; night', and the *-uḷ* derivative is found in all the SDr. languages, including Tulu and Telugu.

The noun *maruḷ* 'bewilderment' (*DED* 3866) is somewhat dubious as an example of *-uḷ* as a noun derivative, if that is what Ramaswami Aiyer intended. Most of the southern languages have it as both verb and noun. All the many examples of verb-and-noun pairs with suffix *-uḷ*, as well as all other such pairs with other suffixes, must be studied in detail to determine whether a priority can be established between verb and noun; at the moment it seems probable that this suffix *-uḷ* is something different from the noun derivative suffix *-uḷ* that we have been studying in this section.

NOTES

1. If the matter is treated in detail in Tolkāppiyam and its commentators, or by such scholars as P.S. Subrahmanya Sastri or L.V. Ramaswami Aiyar, I have failed to find the treatments.

2. He finds unacceptable an analysis as a compound with *talai* 'head', even though he adds for this latter word the meaning 'place', which *Tamil Lexicon* does not give. The meaning is not favourable to this analysis as a compound. See the analysis of Ka. *baytala*, etc. below.

3. *DED* contains seven other examples.

698 *ertu* 'bull, ox': Ta., Ma. *erutu* id.

834 *ŏrgu*, *orgu*, *oggu* 'union, harmony'; *orgu*, *oggu* 'to become one, unite with': **oru* 'one'.

1472 *kurgu*, 'to contort, shrink': *kurgu*, *kuggu* 'to be bent down': Ta. *kuraṅku* 'to bend, droop, wither'.

2387 *nergu*, *neggu* 'to be bent inward, be bruised (as a metal vessel)': Ta. *neruṅku* 'to be pressed, compressed'; *nerukku* 'to press hard, bruise'.

3280 *parti*, *parti*, *patti* 'cotton': Ta. *parutti* id.

3862 *marti*, *matti*, *maddi Terminalia tomentosa*: Ta. *marutu*, Parji *merdengi* id.

4084 *murtaga*, *murtuga*, *muttaga*, *muttuga*, *muttuka Butea frondosa*: Ta. *murukku*, Kurukh *murkā* id.

4. Other Kota words with final *-g*, which either is missing in a doublet in Kota itself, or is not found in cognates, are:

DED 1948 *carpeyḷg* 'woman's neck-chain': Ta. *carappaḷi*, Ka. *sar(a)paḷi* id.

DED 2598 *ta·ko·lg*, *ta·ko·l* 'European type of lock, padlock': Ta. *tārkkōl* 'bolt, bar': Ma. *tākkōl* 'key'.

DED 3846 *mandi·rg*, *mandi·r* 'grass sleeping-mat': Ma. *mantiri*, To. *modery* 'mat'.

DED 2907 *teḷi·*, *teḷi·g* 'hole in wall between two houses (for handing through fire, etc.)': Ta. *tuḷai* 'to make a hole'; n. 'hole' (also toḷai).

DBIA 76 *kabeyḷg*, *kabi·ḷg*, *kabeyḷ* 'blanket': Ta. *kampaḷi*, Ka. *kambaḷi* id.

DBIA 131 *tega·ḷg*, *tega·l* 'door-chain': To. *tagas*, *tegas* 'chain', Ma. *caṅṅala*, Ka. *saṅkale* id.

All of these items are borrowed, those of *DBIA* (Emeneau and Burrow, *Dravidian Borrowings from Indo-Aryan*) ultimately from Indo-Aryan. Another item: *DBIA* 257 *palg*, *pal* 'plank': Ta. *palakai*, Ka. *palage* (Skt. *phalaka-*), gives the clue to the origin of *-g*. It represents the Sanskrit suffix *-ka-*, which is found frequently enough in Kannaḍa as *-ge* (and in Tamil as *-kai*), whence Kota *-g*. A few sets of doublets (the 'chain' word may provide one in Kannaḍa) would provide the model for the Kota doublets, including the set formed by the loss of *-g* in the 'plank' word.

5. This etymology was suggested by Sri N. Kumaraswami Raja in my seminar in 1964.

6. The lower-ranking moiety is called *Tōwfiṯy*. It is also referred to as *töw*, just as the To·r̲θas moiety is also referred to as *to·r̲*. No derivation has yet been discovered for *Tōwfiṯy*. It is probably a compound of *töw* 'god' and *piṯy*. As a separate word the latter means 'silver, ring, the planet Venus, Friday' or 'a long, high shout as an expression of joy' (connected with the verb *piṯy-* [*piṯc-*] 'to utter a long, high shout of joy', *DED* 4460). No combination of these meanings ('the god's or gods' *piṯy*') is at all convincing. The most obvious lead would come from the fact that the *Töwfiṯy* act as dairy priests, the diary-complexes that they serve being referred to at times as *töw* 'god(s)'; no meaning known for *piṯy* seems to be usable in this connection. I have thought that *piṯy* might rather be related to 3449 Ta. *piḷḷai* 'child, son, youth; title of Veḷḷāḷa caste', with the compound meaning something like 'the gods' youth(s) or servant(s)'. This meaning for a word of this origin would be somewhat speculative. Phonologically there is the difficulty that in continuant Toda words Tamil and SDr. *-ai* (*-ay*) does not appear as *-y* but is entirely lost (cf. in 3449 To. *peṯ* < **piḷḷai*). In borrowings from Tamil, however, such a *-y* does appear. If this were the origin of *Töwfiṯy*, it would have to be recognized that this moiety is called by a borrowing from Tamil; there is nothing in the record to explain this. Another possibility has presented itself, viz. that this moiety may be named from the diviner activity which is preempted at present almost entirely by men belonging to it. The element *piṯy* would then be pertinent in the meaning given second, 'a long, high shout'. The diviner's shrill cry is, to be sure, now called only *ö·xm* (*DED* 746). This suggestion would involve the former use of *piṯy* in the sense of *ö·xm*; this is not impossible considering the wide range of vocal activity covered by the etyma in 4460, and notably that Tulu *buḷkaḍumi* means 'to cry as from. . .being possessed by a demon', which presumably refers to the diviner's activity. [In *DEN* and *DEDR* 4198, it is proposed that *Töwfiṯy* is 'the servants of the gods', with *-piṯy* < **piḷḷi*; this last form is attested in Tulu *puḷḷi* 'grandchild'.]

CHAPTER VIII

BRAHUI *sal-/salī-* 'TO STAND': AN ETYMOLOGY*

IN ETYMOLOGICAL work on the Dravidian family of languages many thousands of words fall into place with ease, yielding obvious phonetic correspondences and following these in a manner to delight the neo-grammarian's heart.[1] But eventually, for one reason or another, some words prove recalcitrant. Of some of these words one can suspect (as of English *cut*, *girl*, etc.) that their etymological origin will never be found. Either they are unique inventions in the language in which they occur, or they are the only survivors of word families which have otherwise become extinct. But the scholar is always loathe to give up the attempt to find connections.

One such word that is peculiarly tantalizing is Brahui *sal-/salī-* 'to stand, stand up, wait, remain with, survive, stop, cease from'. From the beginning of attempts to find an etymology for this verb there has been no obvious group of etyma with which it might belong, and as refinement of the Brahui phonetic correspondences has proceeded, the various guesses that were made in the early attempts have become more and more impossible.

The first recorded attempt seems to be that by E.H. Tuttle in "Dravidian *s*" (*AJP* 40.81 [1919]):[2] he compared the South and Central Dravidian **cil-*, **il-* 'not to be', adducing as a parallel for the semantic connection Latin 'stand'>Hispanic 'be'. All this would be acceptable (the loss of **c-* in SDr. has many parallels in other etymological groups), with the exception of the vowel correspondence Dr. **i*: Br. *a*. For this Tuttle offered as a parallel Br. *khaf* 'ear': Ta. *cevi*, Ka. *kivi*. But refinement of the phonetic correspondences (as in *BDCG*, chapter II) makes it clear that, though Dr. **e* is represented variously by Br. *a*, *i*, or *ē*, it is unacceptable to posit Dr. **i*>Br. *a*. The 'ear' words are to be reconstructed with **kev-*, the 'not to be' words with **cil-*; Br. *sal-* should not be connected with **cil-*.

Bray's 1934 publication of the Brahui vocabulary contained fairly elaborate etymological treatment. For *sal-* the etymological entry reads: 'con. with Tam., Mal., Kan. *eḻ-*, Tel. *lē-*, Kuṛ., Malt. *il-* 'rise, stand?'. This contains three different suggestions. Kuru*kh*-Malto *il-* clearly belongs with the group **nil-*, **il-* 'to stand' (*DED* 3043), which will be discussed below. The group represented by Tamil, Malayalam, Kannaḍa *eṛ-* (*DED* 723) cannot contain Br. *sal-*, since the Brahui representation of **ṛ* is *r*, as in *harf-* 'to raise' (in *DED* 723); *s-* in Brahui would be no obstacle, and the vowel correspondence **e*: Br. *a* would be correct.

**Pratidānam*: Indian, Iranian and Indo-European Studies presented to Franciscus Bernardus Jacobus Kuiper on his Sixtieth Birthday, pp. 339-41 (1968).

Bray's other suggestion, Telugu *lē-*, i.e. *lēcu* 'to rise, get up, sprout', *lēpu* 'to rouse', belongs not with **eṛ-* (*DED* 723), since **ṛ*>Te. *ḍ-*>*d-*, but with the group of *DED* 776 **ēṛ-*~**ēl-* 'to rise, ascend, get up; raise, lift up, rouse'. This, in fact, is an attractive etymology for Br. *sal-*/*salī-*. It is necessary to posit a reconstruction **cēl-*, in which **c-* is necessitated only by the Brahui form (certainly not impossible). Addition of a derivative suffix beginning with a vowel yields **cel* [V- with the short vowel *e*, which yields Br. *a*. A derivative suffix of this type is required by the Telugu stems *lē-* and *rē-*, which are derived by metathesis from **ela-*, **eṛa-* (or the like).[3] The alternative Brahui form with *-ī-* (*salī-*) in all probability shows a derivative suffix, perhaps **-ay-*; however, no certainty is yet possible about the phonetics of this matter, even if this etymology should add another valuable detail to the few details already collected in *BDCG* (e.g. p. 36, n. 21).

The meanings of the Brahui verb overlap with those of *DED* 776 in the item 'stand up', and on semantic grounds the connection seems acceptable.

In this etymology the only element that seems to be 'an act of faith', i.e. a point not perfectly obvious and not admitting of complete proof, is the positing of **c-* for the *ad hoc* reason that the Brahui item cannot otherwise be included in *DED* 776. However, sufficient material of this sort was collected by Burrow in "Dravidian Studies VI" (*BSOAS* 12.132-47) to make this positing of **c-* methodologically sound, and further material of the same nature has been added in *DED* and *DEDS*.

In *DED* Br. *sal-* is included, with a query, in entry 3043 **nil-*. The only point in favour of this etymology is the obvious semantic correspondence, since all facets of the Brahui meanings are paralleled in the other languages. Phonetically the etymology is very unsatisfactory (and would deserve several queries rather than one). The only point of correspondence is *-l-*. The reconstructed vowel *i* of **nil-* cannot be represented by Br. *a*. Both **n-* and **c-* appear as zero in many groups of etyma (cf. the preceding paragraph for **c-*), but to group together in one entry instances of loss of both phonemes is to commit the fallacy of the 'undistributed middle'. Br. *sal-* should be removed from *DED* 3043, even if the suggested new etymology proves unconvincing.

Another possibility that should be mentioned is connection with *DED* 198 **al-* 'not to be so-and-so' (rather than, as Tuttle suggested, with *DED* 2106 **cil-* 'not to exist or be in a place'). The meaning connection would be of the kind suggested by Tuttle; though in Dravidian both positive and negative verbs 'to be' usually keep the two types of meaning apart, there is convergence in various languages (as was indicated in *BDCG*, pp. 35-36). To validate this connection it would be necessary to set up **cal-*, with loss of **c-* in the past negative paradigms in all languages, including Brahui itself, since Br. *all-* is the base of the negative tenses of *ann-* 'to be'. This double representation in Brahui (*sal-* and *all-*) makes this etymology, attractive as it might be otherwise, less attractive than the one suggested above.[4]

NOTES

1. The following bibliographical abbreviations are used:
AJP=*American Journal of Philology*
BDCG=M.B. Emeneau, *Brahui and Dravidian Comparative Grammar* (UCPL 27; 1962)
BSOAS=*Bulletin of the School of Oriental and African Studies*
DED=T. Burrow and M.B. Emeneau, *A Dravidian Etymological Dictionary* (1961)
DEDS=id., *A Dravidian Etymological Dictionary: Supplement* (1968)
JAOS=*Journal of the American Oriental Society*
TVB=Bh. Krishnamurti, *Telugu Verbal Bases* (UCPL 24; 1961).

2. Repeated in *Dravidian Developments*, p. 25 (Language Monograph 5, of the Linguistic Society of America; 1930).

3. This morphophonemic development has been treated in detail by Bh. Krishnamurti in *JAOS* 75.237-52 (1955) and in *TVB*.

4. I have been unable to find, in those of his writings accessible to me, that L.V. Ramaswami Aiyar ever suggested an etymology for Br. *sal-*. There seems to be no possibility of borrowing from Indo-Aryan or Iranian. Nor is it profitable to look to *DED* 2286 **cal-* (for the reconstruction with **a*, see Krishnamurti, *TVB*, p. 97), since a meaning connection is quite impossible. [I have finally found L.V. Ramaswami Aiyar's treatment of this verb in "Dravidian notes. I. The Brahui verb", *Journal of the Bihar and Orissa Research Society* 15.116-23 (1929), see p. 122, n. *. There it is conjectured that the verb **kā-*/**kāl-* 'to go' of NDr. (*DED* 1195) and **cal-* 'to go' of SDr. and CDr. (*DED* 2286) are related and that Br. *sal-* belongs with them. I have stated (n. 4) the objection to this connection for *sal-*, on the ground of incompatibility of meaning. Ramaswami Aiyar goes on to an alternative connection of *sal-* with **ēl-*, that advanced in the present paper. His derivation involves his unacceptable development of *s-* from *y-*; he does not explain the relations of the vowel quantities. His insight was, as so often, profound; much may be salvaged from his writings, when they are available.]

[That this etymology, proposed in 1968, now seems improbable, was the conclusion reached in the 1988 paper on 'Proto-Dravidian *c-', footnote 16 (see below in this volume). No further evidence has emerged bearing on Br. sal-, and a query is certainly necessary for its entry in *DEDR* 916.]

CHAPTER IX

A KOTA VOWEL-SHIFT*

§1. A considerable group of Kota forms has in the initial syllable, or the only syllable, a front vowel e or i representing *o or *u respectively of some pre-Kota stage. Most of these vowels are short, but a few are long. The conditioning factor in almost all the instances is *ay in the second syllable of the SDr. form (in the few exceptions *ay is in a later syllable). This *ay presumably became *e in pre-Kota, as it did in modern Tamil, Koḍagu, Kannaḍa, and Tulu (but in Malayalam and Telugu y is lost from the combination), and then, after producing an assimilatory effect in the first syllable, was lost, as are in general short vowels (except *i) in Kota non-initial syllables.

§2. It has already been demonstrated by Krishnamurti[1] that before the vowel *a, including that in the combination *ay, in the second syllable, the PDr. front vowels *i and *e of the first syllable are represented in Tamil-Malayalam by i and in Kannaḍa and Telugu by e, and similarly the PDr. back vowels *u and *o are represented in Tamil-Malayalam by u and in Kannaḍa and Telugu by o. He demonstrated also that the Tamil-Malayalam phenomena are the result of a secondary shift from a PSDr. pooling of *i and *e as *e, and of *u and *o as *o in this context. It is well-known also that in modern Tamil and Malayalam older i and u before a in the second syllable have become e and o respectively. Moreover, these shifts (or, at least, the early ones) take place only when the vowels of the two syllables are separated by a single consonant, and (as should be made quite explicit) only when the first-syllable vowel is short.

In favourable circumstances, reconstruction of the original PDr. vowel quality may be possible: (1) when a morpheme involved in the shifts is represented in another context or contexts by an allomorph with a vowel of the original quality, and/or (2) when there is evidence in forms provided by a language or languages other than these four languages.

§3. In the Kota matter that is being investigated, the resultant vowel e most frequently (8 instances) can be demonstrated to derive from PDr. *o; in most of the examples a single consonant of PDr. intervenes before *ay, but in two examples there are two PDr. consonants intervening. In three examples PDr. had *u; it is impossible to be sure, on the basis of the material of this problem alone, whether the *o which resulted in Kota e was of PSDr. origin or represented the neo-Tamil phenomena. Since we have elsewhere[2] argued that Kota, along with Toda, diverged from Tamil in the pre-Tamil

Journal of Tamil Studies, 1:1.21-34 (1969).

period, it is at least possible that in this matter pre-Tamil and PSDr. were identical; only a complete study of the Kota and Toda vowel systems will clarify this question. Finally, for two instances it is impossible to determine on the basis of the evidence at hand whether PDr. had *u or *o (the asterisked indication is u/o). One further example falls here, in which there intervened *CaCC, which presumably by loss of the vowel a produced Kota CC; PSDr. must have had *o, but there is no further evidence for PDr.

The remaining items present no such problem. Instances of PDr. *u followed by one consonant could yield only *o>e before *ay in the following syllable, and these fall into the previous paragraph. Five examples of *u>i have two PDr. consonants intervening before *ay, and consequently the *u>*o (>*e) shift could not take place. In one example there intervenes *CCV̆C, which produced Kota CC. The few instances of long vowels can only be interpreted as PDr. *ō>Ko. e· (three examples) and PDr. *ū>Ko. i· (two examples), since no factor is known which would have shifted *ō to *ū, or vice versa.

It is unnecessary to treat the Kota consonants here in detail. It suffices to note that of the CC combinations, PDr. or PSDr. NC, i.e. a voiced stop preceded by the homorganic nasal, loses the nasal in these Kota instances. The voiceless stops, long in some contexts, which are represented in Tamil writing by doubled stops, are in this problem represented by CC, even though I have elsewhere (viz., in the paper referred to in n. 2) adopted a different solution, which seemed more economical there; in Kota these become voiceless stops, without any problems involving length (i.e. **CC>C). Kota CC combinations (lk, ṭk) resulting from PDr. C . . . CC or CC . . . C are a different matter; with only two instances it is impossible to generalize any further.

§4. The items follow. They are identified by the entry numbers of *DED* and *DEDS*. Each entry here contains the Kota item, followed by SDr. or other items (Tamil, Kannaḍa, or the like) and then by whatever evidence there is for the PDr. vowel quality.

PDr. *o>Ko. e (*oCay>eC, *oCCay>eC)

1386 keṛ 'umbrella': Ta. kuṭai, Ka. koḍe: Te. goḍugu.

3483 peg 'smoke': Ta. pukai, Ka. poge: CDr. has o-forms.[3]

3729 per 'burden': Ta. poṟai, Ka. poṟe: Ta. poṟu.

4219 meḍ 'dullness of senses': Ta. mōṭu, mōṟai, moṭṭai, Ma. mōṭṭu, Ka. mōṭa, Te. mōṭu, Br. mōṭ. The vowel is clearly of an o-quality, but no single complete reconstruction seems possible to cover all the forms (*mōṭṭu, *mōṭṭay; but also Ta. mōṭu with ṭ and mōṟai with ṟ and a short-vowel form moṭṭai); for pre-Kota probably *moṟay is justified.

2337 elka·l 'fireplace': Ta. ulai, Ka. ole: CDr. has o-forms: only el- is explained; it is uncertain what -ka·l represents, unless it is *kal 'stone' (cf. Parji colŋgel: kel 'stone').

2907 teḷi·, teḷi·g 'hole in wall between two houses (for handing through

fire, etc.)': Ta. toḷḷai, tuḷai 'hole', Ka. toḷe, toḷḷe id. The extra Kota material -i˙, -i˙g is not completely explained.[4]

1722 keṭ 'testes, scrotum': Ta. koṭṭai, Tu. koṭṭè.

4199 meḍ 'dullness of knife': Ka. moṇḍe.

PDr. *u>*o>Ko. e (*uCay> . . . >*oCay>eC)

1496 kerv- (kert-) 'to bark': Ta. kurai (-tt-), To. kwarf- (kwart-): Parji kuri, gurj-.

1385 keṛv- (keṛd-) 'to shake (*tr.*)': Ma. kuṭayuka 'to throw out, shake extremities': Koḍ. kuḍi- '(earth) shakes', Tu. kuḍpuni 'to shiver, shake off'.

3507 peṇ 'bamboo milkpot': Ta. puṇai 'bamboo': Koḍ. puṇḍa id.

PDr. *u/o>Ko. e (*u/oCay> . . . >*oCay>eC)

4087 mel 'breast': Ta. mulai, Ka. mole. If the items in 4088 meaning 'waist, back, loins' should be joined with the 'breast' words, then the PDr. vowel is *u (some CDr. forms from *mulk-, Brahui mu*kh*).

3543 pey 'river': Ma. puṟa, Ka. poṟe.

PDr. *u/o>Ko. e (*u/oCCV̆Cay> . . . >*oCCay>eCC)

580 elk 'pestle': Ta. ulakkai, Ka. olake.

PDr. *u>Ko. i (*uCCay>iC)

1357 kik 'small round basket': Ka. kukke, Tu. kukke.

1440 kip 'heap (of rubbish, weeds)': Ta. kuppai, Ka. kuppe.

3509 piḍ 'vulva': Ta. puṇṭai.

2194 ciḍ muḷ 'Solanum indicum': *cuṇṭay.

2731 tib 'beetle': Ka. tumbe 'large black bee', Te. tummeda id., Malto tumbe 'wasp'.

4119 mind 'previous time, state of being before in space': Ta. muntai 'antiquity, former time, in front of'. This item is discussed at some length in §6, last item.

PDr. *u>Ko. i (*uCCV̆Cay> . . . >*uCCay>iCC)

4041 miṭk 'small hammer': Ta. muṭṭikai. A remaining problem is the loss of i in the second syllable, rather than its retention as y; there may have been assimilation (e.g., *muṭṭa/ukai) before loss.

PDr. *ō>Ko. e˙ (*ōCay>e˙C)

879 e˙ṛ 'sp. Ochlandra, false bamboo': Ta. ōṭai.

1827 ke˙ṛ 'southwest monsoon': Ta. kōṭai, Ka. kōḍe.

2357 te˙l 'forest': Ta. cōlai 'grove', To. twa˙s̲ id.

PDr. *ū>Ko. i˙ (*ūC/CCay>i˙C)

4146 mi˙ḷ 'marrow': Ta. mūḷai 'brain, marrow', Tu. mūḷe 'bone'.

3572 pi˙c 'cat': Ta. pūccai, Tu. pūcè.

§5. The most casual inspection of *DED* finds numerous items in which this Kota development has not taken place, i.e. in which *ŏ̯ and *ŭ remain before *ay in the next syllable. This type of situation, in which there are seen in one language two developments of a proto-phoneme in the same context, has been treated both in general and in some detail elsewhere.[5] The principle

developed there holds here, viz. that the dissimilar correspondence (here *o̤: e̤, *ṳ : i̤) is the genetic development and the more similar correspondence (here *o̤ : o̤, *ṳ : ṳ) is the result of borrowing from a language in which the Kota type of development has not taken place. The language here may be Tamil, or the Badaga dialect of Kannaḍa, or Toda. For Badaga, evidence is only exceptionally available, and it is at times necessary to use Kannaḍa evidence as if it were sufficient to establish borrowing from Badaga. In a very few instances it seems that Toda may have been the influencing language, though the aberrancies of Toda usually make this difficult to prove.

§6. Most conspicuous are the Kota doublets in seven of the instances in which we have already found examples.

1386 keṛ 'umbrella'; koṛ id. is found only in a proverb of uncertain provenance.

4087 mel 'breast'; mol id. is found in a proverb said to be of Badaga origin. The form mol is also found meaning 'pointed end of (iron) anvil'. It is surprising that there should have been borrowing of a word belonging to the Kotas' characteristic blacksmithing occupation. It was said, however, that their anvil was originally a stone, and presumably there were diffusional innovations and ameliorations in technique, which were accompanied by diffusions of vocabulary. Our dictionaries give no clue as to the source of this particular diffusion.

3483 peg 'smoke'; pog 'tobacco'. Tobacco is a modern article of diffusion. Again, the dictionaries give no help, apart from the Tamil phrases pukai-kuṭi- 'to smoke tobacco' (lit. to drink smoke) and pukai-piṭi- 'to smoke cigar' (lit. to hold smoke), the latter of which looks as if Tamil may in fact use the noun pukai meaning 'tobacco'.

2907 teḷi·(g); toḷ 'hole, vagina'. This last word might be derived from a SDr. *toḷu or *toḷḷu; the nearest evidence is Ka. toḷḷu 'state of being hollow' and Tuḷu toḷu 'hole; empty'. However, most of the pertinent noun formations in Tamil and Kannaḍa have the suffix *-ay, and consequently it seems most probable that toḷ is a borrowing. Its second meaning is not given in our dictionaries for the other languages.

879 e·ṛ 'sp. Ochlandra'; o·ṛ id. Since Kannaḍa has ōṭe, which would yield Kota o·ṭ (or e·ṭ), the origin is probably Ta. ōṭai. To. wa·ṛ might be invoked here, since the initial Kota (^{w}o·) is phonetically not far from Toda wa·, with which it corresponds in numerous pairs of etyma; a Kota who knows any Toda would most certainly recognize the correspondence and be open to diffiusion of this word.

1496 kerv- (kert-) 'to bark'; kurv- (kurt-) 'to snore'. These meanings belong together in this etymological group, as is clear from To. kwarf-, which means both, from the Tulu items korapuni 'to bark, roar', korape 'one who snores', and from Brahui *kh*urrukāv 'a snore'. The 'snore' meaning is not recorded for Tamil, Malayalam, or Kannaḍa and if there were borrowing from the first, one would expect *korv-. However, Badaga gur- (gurt-) 'to

snore' was recorded (whatever its origin may be), and is undoubtedly the source of the vowel u in Kota.

4119 mind 'previous time, state of being before in space'; mund id. Here the contact languages have u. But in addition, Kota itself has forms in which u (<*u) is to be expected, e.g. mun-, mu- 'front, fore' (: Ta. muṉ, Ka. mun, munnu, To. mu-). These helped to produce the doublet mind, mund; once this doublet existed, other doublets arose in the set of etyma: mund- (mundy-), mind- (mindy-) 'to go in front, act first' (: Ta. muntu [munti-]), mundal, mindal 'being first or before', as well as mine·r 'any day before yesterday' (: To. mune·r̲). But it should be noted also that antonyms of some of these words have i, viz. 3452 pind- (pindy-) 'to walk behind', pibal 'afterwards, behind'; these may have had some influence in the productions of mind- and mindal.

§7. Of the remaining items, a long list (22 items) consists of nouns, frequently denoting objects of higher culture or of the context of the lower plains. The source is often ambiguous as between Tamil and Badaga, when it is remembered that the standard Tamil spelling (. . . u . . . ai) represents in fact a vernacular pronunciation equivalent to that of Badaga (. . . o . . . e). It is only when one or the other language, Tamil or Kannaḍa, is missing in the *DED* entry that one can be fairly sure of the origin of the Kota word, and even then Badaga sometimes might have the word even if the Kannaḍa dictionary does not.

621 or 'sheath, scabbard': Ta. uṟai, Ka. oṟe.

903 o·l 'palm leaf': Ta. ōlai, Ka. ōle.

1564 ku·ṛ 'winnowing basket': Ta. kūṭai, Ka. gūḍe. Kannaḍa's initial g- makes it less likely as source.

1733 koṇḍ 'knot of hair at back of head', goṇḍ 'knob on end of walking stick, head of pin': Ta. koṇṭai 'dressing of hair in large coil, head (as of nail), knob (as of cane)', Ka. koṇḍe, goṇḍe 'tuft, tassel, cluster'.

1765 kor kor in- 'to make the sound of a death-rattle': Ka. kora 'sound of hoarseness, purr of cat'. There may be an onomatopoeic effect here to cause retention of o rather than the expected e.

1792 koḷ 'tune, song': Ta. koḷai.

1831 ko·ṭ 'castle, palatial mansion': Ta. kōṭṭai, Ka. kōṭe.

1833 go·ṛ 'wall': Ka. gōḍe.

2262 cu·ḷ 'prostitute': Ta. cūḷai, Ka. sūḷe. Either Ta. c or Ka. s would be represented by Ko. c.

2396 noṭ 'sound of clicking the tongue': Ta. noṭṭai 'smack', Ma. ñoṭṭa 'cracking the joints of the fingers'.

2879 toḍ 'throat': Ta. toṇṭai.

2883 doṇ 'big club' : Ka. doṇṇe.

2897 co·r 'dove': Koḍ. to·re pakki, To. twar fïɨ̈ The source of diffusion is uncertain.

3074 nor 'foam': Ta. nurai, Ka. nore.

3497 poṛv 'sari': Ta. puṭaivai.

3542 puḷ 'crevice, crack, lane between houses': Ta. puṟai 'hole, narrow path', Ka. poṟe 'path, road'. Probably from Tamil, on the basis of the meanings.

3670 poṛ 'slope of hill' : Ka. poḍe 'extension, length, height, stature'.

4048 moṭ 'egg': Ta. muṭṭai, Ka. moṭṭe.

4101 moḷ 'peg': Ta. muḷai, Ka. moḷe.

4124 mu·ŋg 'dumb': Ta. mūṅkai, Ka. mūṅga.

4134 mu·ṭ 'bag of grain as a load for an animal': Ta. mūṭṭai, Ka. mūṭe.

4140 mu·l 'corner, direction': Ta. mūlai, Ka. mūle.

In a few items -e of colloquial Tamil or of Badaga (Kannaḍa) is represented by Kota -y (which is sometimes in a metathesized position), as it is in occasional Toda borrowings also. These must represent a very recent layer of borrowing. The very great majority of instances of -y represent *-i.

2229 toyḷ 'seed with fleshy covering inside jack-fruit': Ka. toḷe. The jack-fruit does not grow in the higher Nilgiris.

2347 joyk 'carefulness' : Ka. jōke. The vowel shortening before y is a normal Kota development in some contexts.

4113 moyr 'complaint': Ta. muṟai 'complaint, grievance', Ka. moṟe 'roaring, wailing, etc.' (To. muṟy 'complaint' presents problems still unsolved, viz. u and ṟ, the latter since in both the contact languages ṟ has long since fallen together with r.).

4115 moyr 'relationship between kin': Ta. muṟai id., 'order, time, turn, etc.', Ka. moṟe 'time, turn'. Probably from Tamil on the basis of meaning.

In several items it is not quite clear what the correspondence is for the Kota phoneme y.

510 oṛyn 'owner', oṛym 'things in house, jewelry': Ta. uṭaiyāṉ, uṭaimai, Ka. oḍeya, oḍame. Does y of oṛyn represent ai or y in the Tamil form? Which ai in uṭaimai does the Kota y of oṛym represent?

1848 ko·ryk 'vow paid to god': Ta. kōrikkai 'request, wish', Ka. kōṟike 'wishing, desiring'. Kota y may represent i of Tamil and Kannaḍa, rather than -ai/-e. It is not certain whether we should expect *ke·ryk, in spite of 4041 mitk.

§8. In a group of nine verbs o and u appear instead of the expected e and i.

572 orv- (ord-) 'to touch or stroke gently', (ort-) 'to rub into paste': Ta. urai (-nt-) 'to be rubbed away or into a paste', (-tt-) 'to wear away, rub into paste', Ka. ore (orad-) 'to touch, rub, grind', To. warf- (wart-) 'to rub into paste'. The first Kota item coincides in meaning and form of past tense with Kannaḍa, the second with Tamil or Toda.

799 oṛv- (oṛd-) 'to break (*intr.*)', (oṛt-) 'to break (*tr.*)': Ta. uṭai (-nt-) 'to be broken in pieces', (-tt-) 'to break into pieces', Ka. oḍe 'to be broken; break in pieces (*tr.*)', To. waṛ- (waṛθ-) 'to be broken in pieces', waṛf- (waṛt-) id. (*tr.*). Any of these languages might be the source of diffusion, and Badaga evidence is at hand: oḍe-/oḍa- 'to break' (past stems oḍad- *intr.*, oḍat- *tr.*).

1501 kolv- (kold-) 'to suffer because of disease', (kolt-) 'to make to suffer, mash up': Ta. kulai (-nt-) 'to tremble, be thrown into confusion, become softened', (-tt-) 'to agitate, disturb, destroy'. Tamil must be the source, since Kannaḍa is missing (no Badaga evidence) and Toda has other shades of meaning.

1514 koḷv- (koḷd-) '(flesh) rots': Ta. kuṟai (-nt-) 'to become soft, mashy', Ka. koṟe 'to rot', To. kwaḍ- (kwaḍθ-) id. Badaga ko·v- (ko·d-) 'to rot' was recorded thus; the related word for 'corpse' was later recorded as köë with fully-retroflexed vowel quality,[6] and it is probable that the verb forms had similar vowel quality. However, either vernacular Tamil or Kannaḍa would have ḷ derived from ṟ, and either might be the source of the Kota form.

1537 korv- (kord-) 'to be reduced in size or number, (voice) becomes hoarse': Ta. kuṟai (-nt-) 'to diminish', Ka. koṟe id., To. kwaṟ- (kwaṟθ-) id. Badaga has korad- as past stem of the corresponding verb. Anyone of these languages might be the source. For the related nouns korv 'deficiency, want, fault' and kor in kor go·ṛ 'defective horn', kor per 'waxing or waning moon', there is an identical problem (e.g., Ta. kuṟaivu, kuṟai).

1544 korv- (kort-) 'to make fallen branch into club': Ta. kuṟai (-tt-) 'to cut', Ka. koṟe id., To kwaṟf- (kwaṟt-) id.

619 urv- (urd-) 'to sink into ground or hole of its own weight', (urt-) 'to press forcibly into': Ta. uṟai (-tt-) 'to become firm'. There is here the problem (unsolved) of u rather than o; moreover, Kota seems to have developed an intransitive-transitive contrast which is found in no other language.

1496 has the doublet kurv- (kurt-) beside kerv- (kert-); this is discussed in §6.

The complicated set of Kota verbs meaning 'to kick' (527) surely belongs here: od- (ot-), o- (ot-), ov- (ovt-). Tamil has utai (-nt-/-tt-), Kannaḍa ode (odad-/odd-), and Badaga ode (odat-/ott-) (Malto with utese, usete gives evidence for PDr. *u). It looks as if the Kota set od- (ot-) is the result of Badaga influence. o- (ot-) might be a back-formation (but an unparalleled one) from the past stem ot-. The third set ov- (ovt-) remains unexplained, unless it is the result of contamination with the unexplained Toda paf- (paft-).

That the shift *o>e is to be expected in this group of verbs is clear from 1385 keṛv-, which is derived from *kuṭay-, as Ma. kuṭayuka indicates. That keṛv- has not been remade with o, as have the verbs just listed, results from the situation that no language with which Kota is in contact has a verb that is cognate with keṛv-. For all the other verbs listed in this section it has been possible to find sources of contamination. Only 1496 kerv- 'to bark' shows the Kota shift in spite of diffusional possibilities, alongside of a contaminated form kurv-.

§9. In two miscellaneous items in which the shift might *prima facie* be expected, it is possible, or even probable, that the Kota forms do not represent earlier forms with *-ay.

647 o·ḷ, in o·ḷ a·ṛ- '(jackal) howls'. Tamil, Malayalam, and Telugu have

nouns with *-ay: Ta. ūḷai 'a howl', ūḷaiy iṭu 'to howl', Ma. ūḷay iṭuka id., Te. ūla 'a howl'. But Kannaḍa has ūḷ 'a howl' and ūḷ, ūḷu 'to howl'. In spite of the difficulty of the Kota vowel (o· instead of u·;? assimilation to the following a·), it is probable that the Kannaḍa forms show the type of derivation that is represented in Kota.

3493 poṛc- (poṛc-) 'to winnow'. The cognate verbs in Tamil, Toda, Kannaḍa, and Tuḷu all are derived from formations with *-ay-. But the Kota form, though almost isolated in this matter, seems to be derived from one with a stem formative *-i-; Tuḷu has also puḍipuni 'to quarrel'.

§10. A number of items in Kota have i and i·, which derive from *u and *u·, without a conditioning *-ay being found in any of the cognates. No explanation is at hand for these forms, except in the first two or three, to posit an otherwise unattested *-ay.

3544 piḷ, puḷ 'small stick used in tipcat': Ta. puḷ 'bird, stick used in tipcat', To. pïṯ 'bird', Te. pulūgu id. (The Kota word for 'bird' is paky; see *DBIA* 233 *b*.)

1573 ki·n 'mushroom': Ma. ku·n, Ka. (Kurumba dialect) kūnu, Tu. gūnu. To. kyu·n has an unexplained y, which may possibly be involved in the problem.

4098 miḽyp 'thorny plants': Ta. muḷ 'thorn', Ko. muḷ id., To. muṯ id., Ka. muḷ id.

578 irp- (irpy-) 'to blow through (tube, wind-instrument)', To. ürp- (ürpy-) 'to play (clarinet, flute)', Koḍ. urïp- (urïpi-) id., Tu. urpuni id., (Ka. urubu 'to blow strongly with the mouth'). In a verb of this type, no *-ay is possible.

2207 ci·l 'life, air, blast of air from bellows, noise' is explicable in terms of the contraction of a form like Ka. suyil 'breath, a sigh', not in terms of Ka. sūlu, which is also a contraction.

§11. A considerable number of other *DED* entries include other languages which show isolated, and so far unexplained, shifts of ŭ to ĭ and of o to e. There are also a few entries which suggest that shifts of this kind already existed in the reconstructed language, e.g., 2204, 2396, 3516, 3528, 3554, 3598/3674. No explanation is at hand, and this matter can be left here.

NOTES

1. Bh. Krishnamurti, 'Alternations *i*/*e* and *u*/*o* in South Dravidian', *Language* 34.458-68 (1958); *Telugu Verbal Bases*, pp. 111-8 (1961).

2. 'The South Dravidian Languages', *JAOS* (forthcoming; [87.365-413 (1967)]).

3. Cf. Krishnamurti, *Telugu Verbal Bases*, p. 116.

4. For -g, see n. 4 in 'Some South Dravidian Noun Formatives' (forthcoming; [IL 27.21-30(1966)]).

5. Especially in *Kolami, a Dravidian Language*, p. 146, statement (4), and following.

6. 'The Vowels of the Badaga Language', *Language* 15.46 (1939).

Chapter X

KOḌAGU VOWELS*

KOḌAGU IS A MEMBER of the southern sub-group of the Dravidian family. Its vowel system contains seven contrasting vowel qualities, although Proto-Dravidian and most of the Dravidian languages have only five. An attempt is made to trace completely the origin of the extra vowels.

1. Koḍagu (Koḍ.) is a member of the southern sub-group of the Dravidian family, spoken in Coorg in the Western Ghats to the west of Mysore.[1] Its vowel system is aberrant in that two more vowel qualities must be recognized, contrasting with the normal five of most of the Dravidian languages and of Proto-Dravidian (PDr.). In this paper an attempt is made to trace completely (or almost so) the origin of the extra vowels.

2. The general Dravidian vowel system contains five vowel qualities, *a e i o u*, and two lengths for each, short and long. Koḍagu has two additional vowel qualities, *ë* and *ï*, each appearing both short and long. These are back unrounded vowels, respectively mid and high.

The contrasts which establish seven vowels in Koḍagu are fairly easy to find. Here it is necessary to exemplify only the contrasts between the three high vowels *i u ï*, and between the three mid vowels *e o ë*, plus *a* (see Chart I).

Chart I

	HIGH VOWELS		
short in initial syllable:			
timbi '*I will eat*'	tumbi '*beetle*'		tïmmia '*you sneezed*'
short in final syllable:			
aki '*husked rice*'	taku '*may give* (*to me or you*)'		takï '*talk, language*'
long in initial syllable:			
ti·tï '*feed*!'	ku·tï '*noise*'		tï·të '*I used it up*
	MID VOWELS AND *A*		
short in initial syllable:			
geddë '*I won*'	poddïci '*god possessed* (*a shaman*)'	ëddë '*I got up*'	baddë '*I ruled*'
short in final syllable:			
a·ne '*elephant*'	—[2]	a·në '*I became*'	ma·na '*self-respect*'
long in initial syllable:			
te·ku '*may smear*'	po·ku '*may go*'	kë·ku '*may ask/ hear*'	ka·ku '*may call*'

The classes of vowels that should be identified in what follows are: high

**JOAS*, 90.145-58 (1970).

i u ï, mid *e o ë*, low *a*, front unrounded *i e*, back unrounded *ï ë*, back rounded *u o*.

3. Some of the distributional statements about the Koḍagu additional vowels as they occur in initial syllables are:

(1) The back unrounded vowels do not occur after the palatal consonants (affricates) *c j*. (There is one exception in the material, 2184 jïṭï '*back hair*'; see §9.)

(2) Before the retroflex consonants *ṭ ḍ ṇ ṇḍ ḷ*,

(a) after dental consonants *t n*,
velar consonants *k g*,
zero,
the back unrounded vowels occur and the front unrounded vowels do not occur;

(b) after labial consonants *p b m*,
neither the back unrounded vowels nor the front unrounded vowels occur.

In both (a) and (b) the back rounded vowels and *a* occur.

The very few exceptions seem to be borrowings: i·ṭi '*spear*' (beside ï·ṭi), beṭa '*mountain*', heḍḍë '*stupid*' (an addition to *DED* 677; *h-* is the Kannaḍa representation of **p-*), pe·ṭe '*bazaar*', be·ḷe '*half of a seed*', giḍa '*plant*'; also one with the voiced stop *d* preceding the vowel: diṇḍï '*stem of plantain*' (no statement is given in (2a) for initial *d-*, since this is the only relevant example).

Statements (1) and (2) must be complemented by a statement that in initial syllables and before other consonants than retroflexes, other vowels than the back unrounded vowels occur freely in contrast, and the back unrounded vowels have a restricted productive status, though the contrasts in §2 clearly give them independent status. In this context these vowels are linked almost entirely to a small number of morphemic, i.e. morphophonemic, sequences, as appears, by implication, in the listing of paradigmatic sets in which they appear in §4 (3a), (3b), and (4).

(3) Before a retroflex consonant which is followed by *a* or *e* (the latter derived from PSDr. **ay*),

after any consonant (there occur *k c p b*, but no instance of *zero*),
the short back unrounded vowels and the short front unrounded vowels do not occur.

This involves an exception to the occurrence of back unrounded vowels stated in (2a).

4. The following statements of genetic derivation of the vowels of initial syllables are made on the basis of comparative treatment.

(1) Before a retroflex consonant (there occur **ḍ*, **ḷ*, **ḷḷ*) which is followed by the low vowel **a*, as well as by the combination **ay* (which becomes Koḍagu *e*), and after certain consonants (**k-*, **c-*, **p-*, but not **v-*, which is

represented by Koḍagu *b*-), the short front unrounded vowels become Koḍagu *a*. This is complete assimilation, i.e. lowering to the position of *a*. There are no exceptions to the operation of this rule. This change results in the distributional statement (3) in §3, when supplemented by the genetic development (3b; [p. 187]) for the changes after **v-* (>Koḍ. *b*-).

The instances are:

1277 kaḍake '*bed*': Ta. kiṭakkai (i.e. kiḍakai), Ma. kiṭakka (i.e. kiḍaka) id. (SDr. **i/e*; Gondi has evidence for *e* in *DEDS*).

1279 kaḍaŋgï '*deep, waterless ditch*': Ta. kiṭaṅku (i.e. kiḍaṅgu) '*ditch*' (SDr. **i/e*); but Kannaḍa has kaḍaṅgu '*ditch*', and Koḍagu might be a borrowing from Kannaḍa.

1321 kaḷa- '*to dig*': Ta. kiḷai id., *etc.* (Ta. kiḷḷu id. gives evidence for PSDr. and PDr. **i*. Delete the query in *DED* before the Koḍagu item.)

2294 jaḷe '*long thin pliable stick*', jaḷe- (jaḷand-) '*to sway like a long pliable stick*', jaḷa- (jaḷat-) '*to make sway*': Ka. seḷe '*twig, stick*' (also ceḷu, *etc.* '*long flexible stick*'), Te. sela '*twig*', Tu. cilè, śilè '*a fishing rod*' (? PDr. ***i).

3411 paḍa maṇḍe '*back of head*', paḍaneṭi '*nape of neck*': Ka. peḍa '*state of being behind, the back*', peḍa(n)dale '*back of head*', Ta. piṭar (i.e. piḍar), *etc.* '*nape of neck*', Pa. piḍtel '*behind, after*' (see *DEDS* for Koḍ.; PDr. **i* on basis of Parji).

3449 paḷḷe '*female of various animals*': Ta. piḷḷai '*child, young of many animals*', *etc.* (PDr. **i*. Delete the query in *DED* before the Koḍagu entry.)

It would be tempting to include aḷa- (-p-, -t-) '*to sit down*' in 426 on the basis of a reconstruction **iṛay-*; doubt must, however, be recorded, since this entry otherwise has no verbs with the derivative suffix *-ay-*, and the meaning '*to sit down*' is not otherwise attested among the developments of the basic meaning in 426, viz. '*to descend*'.

(2) 3986 maḷu '*chillies*': Ta. Ma. miḷaku (i.e. miḷagu) '*black pepper*', Ko. meḷg '*chilli*'. To. mö$\dot{t}$x '*pepper*', can be explained on the basis of a pre-Koḍagu step **maḷagu* (*g* here representing [γ] or possibly some other fricative), after which there occurred contraction: **-agu>-u*. Two other good etymologies allow the statement: **-a/ugu*>Koḍ. *-u*. These two instances are:

202 alu '*cowrie*': Ta. alaku (i.e. alagu) '*number, calculation, cowries used in reckoning*'.

953 kaḍu '*mustard seed*': Ta. Ma. kaṭuku (i.e. kaḍugu), Ko. kaṛg, To. korx id.

Parallel to this development is: **-avu*>Koḍ *-u*. The instances are:

2460 taḍu '*lateness, delay*': Ka. Tu. Te. taḍavu '*delay*'. There is a Tamil noun taṭu (i.e. taḍu) '*hindering, resisting*', but since its meaning is not sufficiently near to that of the forms under consideration, we have probably achieved the correct equivalence.

1537 koru, koravu '*defect, deficiency*': Ma. kuṟavu '*deficiency, disgrace*', Ko. korv '*deficiency, want, fault*'. Here the Koḍagu doublets give pause but it is possible that koravu is a borrowing from Malayalam.

Such words as 2959 naḍu '*middle*', 3537 puḷu '*worm*', and 1483 kuru '*seed*' pose a problem. For the first there are two possibilities among the etyma: Ta. naṭu, naṭuvu (i.e. naḍ-), Ka. naḍu, naḍu/avu (cf. also Ko. naṛv, To. noṛf). But for puḷu and kuru there are no possibilities other than *puṟu and *kuru. We must note that L.V. Ramaswami Aiyar[3] reported and discussed the doctrine of the old Tamil grammarians on the subject of the distribution of final [*u*] and [*ï*]. The important rule for our purpose is that (p. 92) 'in all disyllabic words with a short basic vowel whether immediately followed by short plosives or other short consonants, the final vowel is *u*. . .', as in *puḷu* (worm), *naḍu* (middle), *adu* (that), *etc.*' It is really intended that 'all' such words end thus, including such 2sg. imperatives as viḍu (spelled viṭu) 'leave off!'. In later, colloquial Tamil, this [u] is replaced by [ï] except in such words as '*puḷu* (worm), *koïu* (mosquito)', in which [u] is preserved 'on account of the influence of the rounded vowels preceding'. In his examination of Tulu material he found that much the same rule applied at that of the Tamil grammarians, e.g. 952 kaḍu, 2959 naḍu, 3537 puru, 185 aru.

It seems almost certain that Koḍagu too shares in this rule in some way. However, very few forms exemplify final -*u*. Certainly, all 2sg. imperative forms that might follow the Tamil grammarians' rule and have -*u*, have in fact -*ï*, e.g. ïḍï '*drop it*!', buḍï '*let go*!', terï '*pay*!'. Nor do adï '*that*' and the other demonstrative pronouns have -*u*. Since 3537 puḷu and 1483 kuru fiud no other explanation, it may be thought that the colloquial Tamil rule applies, that final -*u* is retained when an original back rounded vowel precedes, and otherwise there occurs -*ï*. If this is so, then the imperatives should show some forms with -*u* (e.g. 2183 cuḍ- should have cuḍu) and some with -*ï* (e.g. ïḍï)—but all have -*ï*, and analogy must be invoked as having spread from the great majority of imperatives with regular -*ï* to the very small minority which should have had -*u*. The demonstratives like adï and such words as marï '*counter*' (3903) would be regular by this restricted rule. Only naḍu '*middle*' still seems to cause difficulty (colloquial Tamil has naḍï), and probably a strict solution would rely on Ta. naṭuvu, Ka. naḍu/avu and extension of the contraction rule to read: **a/uvu* > Koḍ. -*u*. This, however, may be unnecessary if we should admit the possibility of influence from Tulu naḍu.

Some of the discussion above anticipates the treatment of final vowels in §5; this was necessary, of course, in order to identify those instances in which the contraction rule applied.

(3) After the operation of development (1) has removed certain forms from the operation of the following rule—

before the retroflex consonants *ṯ *ḏ *ṉ *ṉḏ *ḷ *ṟ,

(a) after dental consonants *t *n,
the velar consonant *k,
zero,
a PDr. front unrounded vowel is replaced by a Koḍagu back unroun-

ded vowel of the same height and quantity (*i>$ï$, *i·>$ï$·, *e>$ë$, *e>$ë$·),

(b) after labial consonants *p, *m, *v (which >Koḍ. b),

a PDr. front unrounded vowel is replaced by a Koḍagu back rounded vowel of the same height and quantity (*i>u, *i·>u·, *e>o, *e·>o·).

There are no exceptions except the seven listed in §3 after statement (2b); these are surmised to be borrowings, presumably from Kannaḍa (4503 beṭa, 3639 beˑḷe), or Kannaḍa or Tulu (2637 diṇḍï, 1613 giḍa, 677 heḍḍë, *DBIA* 276 peˑṭe), or Kannaḍa or Tulu or Malayalam (*DBIA* 14 iˑṭi). It may be noted that beṭa '*mountain*' is said to be Kannaḍa, the Koḍagu word being kundï (1548).

After the palatal consonant *c, this vowel change does not occur. This change accounts for the distribution statements (1), (2a) and (2b) in §3.

In a number of the forms the cluster of retroflex consonant plus a following consonant was simplified by loss of the retroflex consonant, but the Koḍagu secondary vowel quality remained. It is not quite certain, because of lack of really clinching evidence, whether the vowel changes of (3) took place and then the loss of the retroflex consonants, or whether the loss of the retroflex consonants preceded the vowel changes, with the vowels being regularized by analogical spread of the back unrounded vowels and the back rounded vowels within paradigmatic sets. Since a few of the pertinent forms are not in paradigmatic sets (viz. ëtï 698, mugg- 3985, muk- 4169), the first type of ordering, which must be assumed for them, can most simply be assumed to have operated in all the instances. The set of rules for simplification of consonant clusters will not be given here, but when they are written, they should be ordered after the rule here given as (3).

The material follows, in the order of the reconstructed vowels *i, *i/e, *i·, *e, *e·.

(3a) Paradigmatic sets: 426, 427, 670, 723, 772, 1348, 1677.

366 ïḍi- '(*wall*)*falls*, (*land*) *slips*; *to knock over*': Ta. Ma. iṭi (i.e. iḍi). (PDr. *i)

373 ïḍi '*the whole*': Ka. Tu. iḍi. (PDr. *i)

375 ïḍ- (ïṭ-) '*to drop* (*tr.*)': Ta. iṭu (iṭṭ-; i.e. iḍu, iṭ-) '*to place, etc.*', Ka. iḍu (iṭṭ-) id. (PDr. *i)

DBIA 41 ïṭi '*ferrule of stick*': Ka. iṭṭi '*spear*' (Pali iṭṭhi-; *i).

387 ëṇe '*double*': Ta. iṇai '*union, couple*', Ka. eṇe, Tu. iṇè id. (PDr. *i)

426 ïḷi- '*to descend*', ïḷïp-, (Mercara dialect) ïˑp- '*to lower*': Ta. Ma. Ka. iṟi '*to descend, etc.*' (PDr. *i)

1280 kïḍuvë '*kite, hawk*': Ka. giḍuga, Te. giḍḍu '*hawk*'. (PDr. *i)

1287 kïṭ- '*to be got*': Ta. kiṭṭu (i.e. kiṭu), *etc.* (PDr. *i)

1289 kïṇḍi '*small metal vessel with spout*': Ta. Ma. kiṇṭi (i.e. kiṇḍi), Ka. Tu. Te. giṇḍi. (PDr. *i)

1318 gïṇi '*parrot*': Ka. Tu. giṇi. (PDr. *i)

1335 kïṇṇë '*boy*': To. kin '*small*', Tu. kinni '*small, young*'. The nasal is

uncertain, since the etyma have dental/alveolar instead of retroflex. (PDr. **i*)

3046 nëḷa '*shade, shadow*': Ta. Ma. niṟal, Ka. neṟal, Tu. nirelu̯, *etc.* (PDr. *i; cf. Ta. nīṟai)

368 ëḍe '*company or proximity of a person*': Ta. iṭai (i.e. iḍai) '*place, opportunity*', *etc.* (PDr. **i/e*)

381 ëḍate '*left* (*side*)': Ta. iṭai, iṭattai (i.e. iḍai, iḍatai), *etc.* (? PDr. **ya-* or **i/e*)

1619 gïṇṇï '*joint*': Ka. giṇṇu, geṇṇu id. (? PDr. **i/e*)

1348 kï·-, kï·ḷï '*lower, below*', kï·da '*place below, down*', kï-puṇi '*lower level in a field*', kïkïrë '*junior member of a house*', kë·kï '*the east*': Ta. Ma. kīṟ, Tu. kīḷu̯ '*below*', Ta. kīṟatu (i.e. kīṟadu) '*that which is below*', Ta. Ma. kiṟakku (i.e. kiṟaku) '*east, low place*', *etc.* (PDr. **i·*, **i*)

427 ï·ḷ- (ï·p-, ï·t-) '*to drag*', also ï·ku '*may drag*': Ta. Ma. iṟu, Ka. iṟ, īṟ, Te, īḍ(u)cu, *etc.* (PDr. **i·*)

2678 tï·ṭ- '*to rub, stroke*': Ta. tīṭṭu (i.e. tīṭu) id. (PDr. **i·*)

2680 tï·ṇḍ- '*to touch*', tï·ṭa '*excrement*': Ta. Ma. tīṇṭu (i.e. tīṇḍu), tīṭṭam (i.e., tīṭam). (PDr. **i·*)

3059 nï·ḷa '*length*', nï·ḍ- (nï·ṇḍ-) '*to stretch out straight* (*intr.*)', nï·ṭ- id. (*tr.*): Ta. nīḷam, nīḷ (nīṇṭ-, i.e. nīṇḍ-), nīṭṭu (i.e. nīṭu), *etc.* (PDr. **i·*)

432 ëḷ- '*to leave position*', ëḷak- '*to uproot*, (*god*) *possesses* (*shaman*)': Ta. iḷaku, iḷakku (i.e. iḷagu, iḷaku) '*to shake* (*intr., tr.*)', Br. hilh '*fever*'. (PDr. **e*)

436 ëḷeë '*youth*': Ta. iḷaiyaṉ '*younger brother*', Tu. ellyāye '*youth*'. (? PDr. **e*)

670 ëṭï '*eight*', ëm-badï '*eighty*': Ta. eṭṭu, eṇ-patu (i.e. eṭu, eṇ-badu), *etc.* (PDr. **e*)

678 ëṇṇ- '*to say, tell*': Ta. eṇṇu '*to think, count*', *etc.* (PDr. **e*)

698 ëtï '*bull, bullock*': Ta. Ma. erutu (i.e. erudu), Ko. et, To. e̊št, Ka. ettu, eddu, eṟdu (Badaga eṭṭu, see *DEDS*). (PDr. **e*)

725 ëḷïd- '*to write*', ëḷïtï '*writing, education*': Ta. Ma. eṟutu (i.e. eṟudu), eṟuttu (i.e. eṟutu). (PDr. **e*)

726 ëḷḷï '*sesamum seed*', ëṇṇe '*sesamum oil*': Ta. eḷ, eṇ ṇey. (PDr. **e*)

1281 këḍi '*spark*': Ka. Tu. kiḍi. (PDr. **e*)

2825 tëḷi- '(*sleep*) *leaves one*', *caus.* tëḷïp-: Ta. Ma. teḷi, Ka. tiḷi, *caus.* tiḷıpu, tiḷupu. (PDr. **e*)

2826 tëḷḷane '*thin*': Ka. teḷḷane. (PDr. **e*)

2828 tëḷi- '*to laugh*', tëḷi '*laughter*': Tu. telipuni '*to laugh*'. (PDr. **e*)

723 ë·ḷ- (ë·v-, ëdd-) '*to get up*', ëp- '*to make to get up, raise*', ëḍï- '*to raise*': Ta. eṟu '*to rise*', eṟuppu (i.e. eṟupu) '*to cause to rise, awake*', eṭu (i.e. eḍu) '*to raise*', Ka. eṟ, ēṟ (eṟd-), ēṟu (edd-) '*to rise*', *etc.* (PDr. **e*, **e·*)

772 ë·ḷï '*seven*', ëḷu-vadï '*seventy*', ëvvë '*seven persons*' (in songs): Ta. ēṟu, eṟu-patu (i.e. eṟu- vadu), eṟuvar, *etc.* (PDr. **e·*, **e*)

1614 këḍ- (këṭ-) '*to be spoiled, ruined*', këḍït- '*to spoil, ruin*', kë·ḍï '*ruin*': Ta. keṭu (keṭṭ-; i.e. keḍu, keṭ-), kēṭu (i.e. kēḍu), *etc.* (PDr. **e*, **e·*)

1677 kë·ḷ- (kë·p-, kë·ṭ-) '*to hear, ask*', also kë·ku '*may hear/ask*':Ta. kēḷ (kēṭṭ-, i.e. kēṭ-), *etc.* (PDr. **e·*)

2844 të·ḍ- '*to search for*': Ta. Ma. tēṭu (i.e. tēḍu). (PDr. **e·*)

2855 të·ḷï '*scorpion*': Ta. Ma. tēḷ, Tu. tēḷu, *etc.* (PDr. **e·*)

3121 në·ḍ- '*to earn*': Ta. Ma. nēṭu (i.e. nēḍu). (PDr. **e·*)

DBIA 55 ë·ṇi '*ladder*': Ta. Ma. Ka. Tu. ēṇi (Skt. śrēṇi->Pkt. sēṇī-).

(3b) Paradigmatic sets: 3608, 4457.

3412 puḍi- '*to catch, hold*', puḍi '*handful*': Ta. Ma. piṭi (i.e. piḍi), Ka. piḍi. (PDr. **i*)

3440 puṇḍ- '*to squeeze*', puṇḍe '*wetness*': Ka. Te. piṇḍu '*to squeeze*'. (PDr. **i*)

3975 muḍi '*fruit when very small and not yet grown*': Ma. miṭi (i.e. miḍi), Ka. Tu. miḍi. (PDr. *i*)

3978 muṇḍate '*silently*': Ma. miṇṭāte (i.e. miṇḍāde). But Ta. Ma. Te. show both *i* and *u* in this set, and Tulu has *u*; moreover, it now seems possible that 4037 belongs with 3978 ('*without reason*'<'*not speaking* (*one's reason*)' or '*mumbling secretly*' or the like), with Kota showing *u*.

3980 muṇḍë, muṇḍïga·rë '*paramour*': Ko. miṇḍṇ, Ka. miṇḍa, miṇḍagāṟa, Tu. miṇḍe, miṇḍakāre, Te. miṇḍagāḍu. (PDr. **i*)

3985 mugg- '*to swallow*': Ta. miṟuṅku (i.e. miṟuṅgu), *etc.* (PDr. **i*)

4421 (see *DEDS*) buṭa '*ceiling joist*': Ta. Ma. viṭṭam (i.e. viṭam) '*cross-beam*'. (PDr. **i*)

4464 boḷe- '*to become full-grown*', boḷat- '*to grow* (*tr.*)', boḷe '*crop*': Ta. viḷai '*to be produced, ripen*', *n.* '*growth, crop*', Ka. beḷe. (PDr. **i/e*)

4419 buḍ- (buṭ-) '*to release, let go*', bu·ḍï '*hut of a toddy-tapper*': Ta. viṭu (viṭṭ-; i.e. viḍu, viṭ-) '*to leave, release, etc.*' , vīṭu (i.e. vīḍu) '*leaving, liberation, resting, house*', Ka. biḍu (biṭṭ-), bīḍu, *etc.* (PDr. **i, *i·*)

4457 bu·ḷ- (bu·v-, budd-) '*to fall*', buddu- (buddaṇḍ-) '*to lie down*', bu·k- '*to fell* (*tree*), *pour*': Ta. viṟu, vīṟ '*to fall, descend*', Ko. vig- (viṛt-) '*to fall*', vi·k- '*to let fall, fell*', Ka. biṟ, bīṟ (biṟd-, bidd-) '*to fall*'. (PDr. **i, *i·*)

408 (Godavarma) bu·ṭi '*blackwood*': Ma. vīṭṭi (i.e. vīṭi), Tu. bīṭi, Ka. bīṭa. (PDr. **i·*)

bu·ṇe '*lute*' (Godavarma), bu·ṇe-mi·nï '*Orion's belt*': Ta. vīṇai '*lute*', *etc.* (<Skt. vīṇā).

3600 poṭi '*box*': Ta. Ma. peṭṭi (i.e. peṭi), Ka. peṭṭi. (PDr. **e*, unless it is from Indo-Ayran).

3603 poṭï '*a lie*': Ta. peṭṭu (i.e. peṭu). (PDr. **e*)

3608 poṇṇï '*wife, female*', pom-maka '*women, wives*': Ta. Ma. Ka. peṇ, Ka. peṇṇu, Ko. pe·mog. (PDr. **e*)

4150 moṭï '*footprint, doorsteps*': Ka. Te. meṭṭu. (PDr. **e*)

4169 muk- '*to smear* (*mud, manure water on ground*)': Ta. Ma. meṟuku (i.e. meṟugu), Ko. mek-, To. möšk-, *etc.* (PDr. **e*)

4502 boḍi '*act of shooting*': Ta. Ma. veṭi (i.e. veḍi), Tu. beḍi. (PDr. **e*)

4511 boṇṇe ney '*butter*': Ta. veṇ-ṇey, veṇṇai, Ma. veṇṇa, Ka. beṇṇe, Tu. beṇṇè. (PDr. **e*)

4524 boḷï- '*to become white*', boḷakï, boḷica '*lamp*', boḷi '*light*', boḷïpï '*whiteness*', boḷḷi '*silver*', boŋge kallï '*a kind of white stone*': Ta. veḷ, veḷi, veḷiccam, veḷuppu, veḷḷi, *etc.* (PDr. **e*)

3631 po·ḍi '*fear*', po·ḍe ko·ḷi '*hen*': Ta. Ma. pēṭi (i.e. pēḍi) '*fear*', Ka. hēḍi '*coward*', Ta. pēṭai (i.e. pēḍai) '*female of birds, hen*'. (PDr. **e·*)

3637 (see *DEDS*) po·ḷia '*basketry box full of edibles, carried by girl of bridegroom's house to bride's house*': Ta. pēṟai '*box, basket*', Ma. pēṟa '*basket*'. (PDr. **e·*)

4546 bo·ṭi '*post in center of threshing floor*': Ko. ve·ṭḷ. (PDr. **e·*)

4547 bo·ṭe '*hunting*': Ta. vēṭṭai (i.e. vēṭai). (PDr. **e·*)

4548 bo·ḍ- '*to beg*', bo·ṇḍu '*it is wanted*', bo·ṇḍa '*it is not wanted*': Tu. bēḍuni '*to beg*', Ta. Ma. vēṇṭum (i.e. vēṇḍum) '*it is desired, must*', Ma. vēṇṭa (i.e. vēṇḍa) '*must not*'. (PDr. **e·*)

S886 bo·ḷe '*neck*': Ma. vēḷa '*throat*'. (PDr. **e·*)

(4) In a number of instances, when Koḍ. *r* follows, a front unrounded vowel is replaced by a back unrounded vowel of the same height and quantity, or, if a labial precedes, by a back rounded vowel of the same height and quantity. In almost all instances *r* is certainly from PDr. **r̲*. There are paradigmatic sets (as in 3), in which **r̲* is lost in the simplification of consonant clusters, but the secondary vowel remains; these are 2683, 2856, 3124, 3998, 4519 (?).

Unfortunately, there are some instances in which the replacement of (4) has not taken place; for some it seems possible to establish contrasting contexts, either preceding or following the vowel, but there still remain a few disturbing exceptions. There are three instances of **e>ë* before what is *prima facie *r*, but may in fact be **r̲* in two of the instances.

The instances of the change with **r̲* follow.

1326 kïrkë '*small*': Ta. ciṟukkaṉ (i.e. ciṟukaṉ), Ma. ceṟukkan '*boy*', *etc.* (PDr. **i*)

3451 purïkï '*mosquito*': Ma. piṟukku (i.e. piṟuku). (PDr. **i*)

439 ëraŋg- '(*food, liquid*) *slips down throat slowly*', ërak- '*to let slip down throat slowly*': Ta. iṟaṅku (i.e. iṟaṅgu) '*to descend*', iṟakku (i.e. iṟaku) '*to lower*', *etc.* (PDr. **i/e*)

2683 tï·r- (tï·ruv-, tï·nd-) '*to be used up*, (*work*) *is finished*', (tï·p-, tï·t-) '*to use up, finish*' (also tï·ku '*may use up/finish*'): Ta. tīr (tīrnt-, i.e. tīrnd-) id. (*intr.*), (tītt-, i.e. tīt-) id. (*tr.*), Ka. tīr, Te. tīru, but also Te. tiṟu '*to be destroyed, removed*', Koṇḍa tīṟ- '*to be used up, be over*'. (PDr. **i·*)

3998 mu·r- (mu·ri-; Mercara dialect mu·ruv-, mu·nd-) '*to disregard, disobey* (*one's words*), *be superior to, outdo*' (deleted from *DED* 4111): Ta. Ka. mīṟu '*to go beyond, transgress, be in excess, be great*'. (PDr. **i·*)

4519 boraḍ- (boraḍuv-, boraṇḍ-) '*to be thrown into confusion by fear*', boraṭ- '*to frighten and make* (*cattle*) *run in all directions*': Ta. viraḷ (viraṇṭ-, i.e. viraṇḍ-) '*to be frightened, skittish*', viṟa (viṟant-, i.e. viṟand-) '*to fear*';

Te. and Gondi also have **r*. (PDr. *e; cf. Ta. veṟi). If bot- '*to fear*' belongs here, there is no etymon with *-t-* in the entry, except possibly as implied by Ta. viṟa (viṟant-).

3623 porïk- '*to pick up small objects*': Ta. peṟukku (i.e. peṟuku) '*to pick up* (*as stones*)', Ka. hekku '*to pick up, take up one by one*'. (PDr. **e*). But Tamil has also poṟukku (i.e. poṟuku) '*to pick up here and there, glean, select*'.

776 ë·r- '*be more than enough*, (*poison*) *diffuses*', ë·ra '*more than enough*': Ta. Ma. Ka. ēṟu '*to rise, increase*', Ta. Ma. ēṟa '*more, etc.*'. (PDr. **e·*)

2856 të·r- (të·ruv-, të·nd-) '(*man*) *becomes full-grown*': Ta. tēṟu '*to be clarified, be accomplished, reach perfection*', Ka. tēru '(*the object*) *to be reached; to reach to the end*'. (PDr. **e·*)

3641 po·r- '*to transport by pack-animal*': Ma. pēṟuka '*to load* (*as oxen*)', Ka. pēṟu id., Tu. pēruni '*to load*'. (PDr. **e·*)

4564 bo·re '*different*': Ta. Ma. Te. vēṟu, Ka. bēṟ(u), bēṟe. (PDr. **e·*)

The two instances of **e·* > *ë·* before what was apparently **r*, but may really be **ṟ*, follow.

3124 në·r- (në·ruv-, në·nd-) '*to come to view*': Ta. nēr (-v-, nērnt-, i.e. nērnd-) '*to meet, come near to, agree, appear, come to view, etc.*', Ka. nēr '*to agree*', nera '*nearness*' (cf. Koḍ. nera mane '*neighboring house*'). But there are other meanings for Koḍ. në·r-, viz. '(*plant*) *becomes tall, straighten oneself, so as to become tall*', which belong etymologically with 2380 Ta. nāṟu '*to sprout, come into being, appear, rise*', ñāṟu '*to appear, arise*', Ma. nāṟuka '*to grow up*', Kui nēja '*to sprout up out of the ground*', *etc.* and various nouns for '*sprout, seedlings for transplanting*'. It is at least possible that 3124 Koḍ. në·r- belongs in 2380; *DED* indicates this by a cross-reference. The transitive në·t- '*to lift*' was put only in 2380. [See now DEDR 2919.]

3126 në·rï '*truth, fact*': Ta. nēr '*straightness, rightness, justice, virtue, etc.*', Ma. nēr '*straightness, truth, justice*', Ka. nēr '*straightness, rightness*'. But there is also Koḍ. ne·re '*direct, straight*', for which cf. Tu. nērè '*straightness, justice, truth; straight, just, true*'. And in addition **ṟ* seems to be indicated by Ta. nēṟṟi '*excellence, that which is correct or just*', Ma. nēṟṟi '*straightness, what is right, common way, custom*'.

In one instance of *ë* before *r* there is no explanation yet possible, viz. *DBIA* 147 sëri '*correct*': Ta. cari, Ma. Ka. Tu. sari (Skt. sadṛśa- > Pkt. sari-).

Exceptions to the change of front unrounded vowels to back unrounded vowels before **ṟ* include a class of systematic exceptions after the palatal *c-*, an exception which is parallel to that stated in (3); viz. 2132 cirate '*leopard*': Ka. ciṟate; 2169 ci·r- '*to grumble*': Ta. Ma. cīṟu, Ka. sīṟu '*to become angry*'. Another class includes (1) instances of **ṟṟ*, before which there are no occurrences of the change: 2834 teti '*narrow walk built on around house*': Ta. teṟṟi '*raised veranda*'; 3118 neti '*forehead*': Ta. Ma. neṟṟi, *etc.*; (2) verbs with **ṟ* in the basic stem and **ṟṟ* in the past stem, the past stem presumably providing the basis for an unchanged vowel throughout the paradigm: 2833 ter- (tet-) '*to pay* (*penalty*)': Ko. ter- (teṭ-), To. teɬ- (teṭ-), Ka. teṟu (tett-); 3622 per- (pet-)

'*to bear* (*child*)': Ta. peṟu (peṯṯ-), Ka. peṟ (pett-), Te. peṭṭu, Pa. ped- (pett-). To this last class probably belongs 1353 kiˑr- '*to tear* (*intr.*)', kiˑt- id. (*tr.*), kiˑtï '*torn piece*': Ta. kīṟu *vb.* and kīṯṯu *n.*; the forms with **ṟṟ* have provided the basis for occurence of the unchanged vowel throughout. One set of instances has **i* following **ṟ*, which may be the conditioning factor for the inhibition of the change; there are no counter-examples: 1324 kiri '*lip*': Ma. kiṟi '*corner of the mouth*', ciṟi, ciri '*lip*' (or conceivably the Koḍagu form is a borrowing from Ma.; yet Ma. *k*- without palatalization by the following front vowel is unexplained); 441 teˑn-eri '*honeycomb*'; Tu. (in *DEDS*) edi id., Ta. iṟavu, etc.; 2835 teri- '*to totter about*': Ta. teṯṯu '*to stumble*', Ma. teṯṯuka '*to slip*'. A few examples, however, yield no possible reason for exception to the rule: 450 eraci '*meat*': Ta. iṟaicci, Ma. iṟacci, Te. eṟaci; 3049 nera- '*to fill* (esp. *harvest-festival pot*)', nere '*to attain puberty*', nere '*that which fills up something*': Ta. niṟai '*to become full*; *to fill*', *n.* '*fullness*', Ka. neṟe, etc.

5. A treatment of some final-syllable vowels follows.

Final **-i* remains as such, and **-ay* becomes *-e*.

Final **-u*. The splitting of this phoneme to yield Koḍ *-u* and *-ï*, as well as contractions yielding Koḍ *-u*, have been discussed in §4(2), as regards maḷu, alu, kaḍu, taḍu, koru, naḍu, puḷu, kuru. There are also three nouns for which we may make the statement that the final combination **-vu* remains: 2002 caˑvu '*corpse*', 3009 naˑvu '*tongue*', *DBIA* 54 baˑvu '*day of new moon or full moon*' (Ta. Ma. vāvu); the non-personal plurals of the demonstratives are to be explained in terms of this statement, e.g. avu '*those*' (cf. Ka. avu), and the only exception seems to be the one recorded 2sg. imperative of this phonological type, kuˑvï '*crow*!' (1551; apparently all imperatives of this type end in *-ï*, for which see §3(2)). Otherwise, final **-u* has come to be a new phoneme *-ï*, which is in contrast with *-u* in some of those instances just mentioned, as well as in some of those resulting from **-um* (see below). An example of the contrast is naḍu '*middle*': naḍï '*plant*!'.[3a]

The combinations **-in*, **-am*, **-um* lose the nasal without change of vowel quality. In the case of the first there results *-i* in utterance final and *-in* before certain elements beginning with a vowel; e.g. bapi '*I will come*', bapinaˑ '*shall I come*?' (suffix *-aˑ*); maˑḍuvi '*I will do*', maˑḍuvin allaˑ '*I will do, shall I not*?'. No occurrence of **-m* surviving in morphophonemic alternation of this kind has been found. Examples of **-am*>*-a* are to be seen in the class of nouns with absolute form ending in *-a* and oblique stem ending in *-atï-*; e.g. mara '*tree*', maratïra '*of a tree*', with which compare Ta. maram, marattu- (i.e. maratu-), Ko. marm, mart-, *etc.* Similarly, boˑṇḍa '*it is not wanted*', with which compare Ta. vēṇṭām, Ka. bēḍa. In the verb forms meaning 'may. . .' the ending *-u* is derived from **-um*; e.g. baku '*may come*', aˑku '*may become; alright*!', kaˑŋgu '*may see*', ïḍu '*may drop*', maˑḍu '*may do*', ëˑvu '*may get up*'; similarly, boˑṇḍu '*it is wanted*' (4548; Ta. Ma. vēṇṭum, i.e. vēṇḍum). The conjunctive (totalizing) suffix *-uˑ* '*and; also*' is from **-um* (cf. Ta. Ma. *-um*, To. Ko. *-m*, OKa. *-um*>MKa. *-u*, -ū>NKa. *-ū*). The lengthening of vowel,

seen also in Kannaḍa, may result from a suspensive intonation pattern. Exx. poṇṇu· makaḷu· '*wife and children*' (poṇṇï-u· maka(ḷ)-u·), akalu· '*then also*' (aka(l)-u·), avu daṇḍ a·ḷu· '*both those people*' (daṇḍï a·ḷï-u· *two person-all*).[4]

The combinations *-*en* and *-*an* lose the nasal with change of both vowels to the mid back unrounded *ë*. The nasal reappears morphophonemically in some contexts before a vowel. Exx. *-*en*: buṭë '*I released*': buṭëna· '*did I release*?'; o·ḍïnë '*I ran*': o·ḍïnëna· '*did I run*?'; *-an: kïṇṇë '*boy*'; kïṇṇënu· '*and boy, boy also*'; avë^{n} 'he'; avë^{n}nu· '*he also*'.[5]

Complete examination of the occurrences of the two extra vowel qualities in other than initial and final syllables would be desirable, but will not be undertaken here. It is already clear that most such occurrences result from developments that have been identified in final syllables and have already been partly exemplified above. There may be added as examples of *ï* such forms as adïna, object form of adï '*it*', kaṇṇïkï '*to the eye(s)*' from kaṇṇï '*eye*', mudïkë '*old man*' (cf. Ma. mutukkan, Tu. muduke id. 4057).

6. Now that the various pertinent changes have been identified, an attempt at unified historical statement can be made.

The high back unrounded vowel *ï* resulted from a different process in each of the two identified positions, initial and final syllable. In each position contrast was established separately, in initial syllables contrast with all other vowels, in final syllables contrast with all other vowels except *-o*. A similar, or identical, quality having been established, though for different historical reasons, in both positions, the independent status of this quality in each of the two positions supported it in the other—in short, *ï* attained very firm phonemic status. The long vowel *ï·* achieved contrast only in initial syllables, not appearing at all otherwise. This was enough to establish phonemic status for it, but its independence was further buttressed by the more firmly established status of the short vowel of the same quality.

7. Historically, more can be said, and should be said, since it would be advantageous if we could establish a historical ordering of the change to phonemic status in its two positions. It is doubtful, however, if this can be achieved.

Final-syllable *-*u*, which yielded Koḍ. *-ï* in general and a few instances of *-u*, as was discussed in §4(2), is commonly referred to as 'enunciative', since it seems to have no morphological rôle but to depend for its occurrence entirely on the phonological matter of the canonical syllabic and word structure of each language. Comparison of the various languages shows that it occurs in Tamil-Malayalam, Koḍagu, Kannaḍa, Tulu, Telugu, Konḍa, Kui-Kuwi, and Malto. It does not occur in Toda-Kota (the absence here apparently resulting from the general loss in these two languages of short vowels, except i, in non-initial syllables), the Kolami-Parji subgroup (with exceptional occurrence in one dialect of Gadba), Gondi (except in one dialect), Pengo-Manḍa, Kurukh, and Brahui. The usual comparative method would, there-

fore, reconstruct it for PDr. As was referred to and discussed in §4(2), Koḍagu shares with Tamil[6] a splitting of 'enunciative' *-u* into two phones [*-u*] and [*-ï*], which have achieved contrast and phonemic status in Koḍagu at least. The *ï*-quality is found in Malayalam also (some dialects, at least), but not in Kannaḍa, and consequently this may be taken to be an innovation in South Dravidian minus Kannaḍa.[7] In Tulu also the 'enunciative' vowel is represented by both *-u* and *-ï* (the latter written in the Tulu grammar and dictionary as u̯). L.V. Ramaswami Aiyar attempted a statement of distribution (in the publication referred to in n. 3) and may have been successful, though there can be no certainty in our present unsatisfactory state of knowledge about Tulu and its dialects. What is clear, however, is that Koḍagu and Tulu are different in respect to the distribution of final *-u* and *-ï*. How the Tulu development is related to that of South Dravidian must still remain unsolved.

Koḍagu *-ï* in final syllables has, then, a somewhat ancient standing. It achieved phonemic status, however, only after (as we assumed in §4(2)) *-ï* was generalized as the 2sg. imperative ending and so was no longer in complementary distribution with *-u*, and after certain historical changes yielded a final *-u* with which *-ï* could contrast (viz. loss of *-m* in the combination **-um*, and the instances of **-a/ugu*, **-a/uvu* > Koḍ. *-u* in §4(2)). Phonemic status for Koḍ. final *-ï* is, therefore, a result of developments within the history of Koḍagu itself as a separate language.

On the other hand, the development in initial syllables of **i* to Koḍ. *ï* before retroflexes after initials other than palatals and labials, also is explicable in terms of parallel phenomena in other Dravidian languages. In Firth's phonetic description of Tamil[8] he says: "When followed by a retroflex consonant or by [r̤; my transcription of his character] the tongue position of the vowels **ii, i, ee, e** is always retracted, giving the vowels a centralized obscure quality.' I have published a similar observation for Kolami,[9] and have field-notes on the subject for several of the languages which I recorded. It is to be expected that in any Dravidian language any vowel before a retroflex consonant has an allophone which shows, either in its latter portion or throughout, some retroflexion. This retroflexion involves both a turning up and back of the tongue-tip and, most importantly, a retraction of the body of the tongue (as Firth indicated), which approximates the formation of the back of the tongue in back vowels, rounded or unrounded.[10] In the case of the front unrounded vowels of two heights, high and mid, there result sounds very close to, or perhaps even identical with, retroflexed back unrounded vowels of the two heights. These in Koḍagu are the chief allophones of the two new phonemes. Length is irrelevant to the quality. In those instances in which the following retroflex consonant was lost by simplification of a consonant cluster and the vowel remained back unrounded, presumably the retroflexion of the tongue-tip in the vowel formation was lost with the retroflex consonant. It was the two (short)

allophones with high position of the back of the tongue that fell together with *-ĭ* of final syllables to form the new phoneme *ĭ*. It seems impossible to pinpoint the relative periods of the attaining of phonemic status in the two positions. Presumably both took place in the history of Koḍagu itself, since it is only Koḍagu that has the extra vowel phonemes.[11] But which was prior, or whether in fact there was any priority, it is not now possible to guess.

In those words of this kind that began with a palatal stop, this consonant apparently reinforced the palatal approximation of the front of the tongue in the following *i* and *e* vowels, to minimize retroflexion and retraction and to prevent a merging of these vowels with the back unrounded vowels. When, on the other hand, such words began with a labial consonant, i.e. with lip-rounding, the lip-rounding combined with the raised formation of the back of the retracted tongue to yield sounds close to, or identical with, back rounded vowels, which had retroflexion of the tongue-tip when the following retroflex consonant remained, but no retroflexion when this retroflex consonant was lost by simplification of a consonant cluster. These vowels fell together with the old back rounded vowels of the language.

8. While the preceding discussion in §§6 and 7 applies especially to the high vowels, statements similar in all respects apply also to the mid vowels. The important difference is that the short mid back unrounded vowel of an initial syllable fell together with final *-ë*, which derived from **-en* and **-an*, and that so far no further discussion of the origin of final *-ë* is possible.

9. In what precedes it has been demonstrated that the two extra vowel qualities of Koḍagu resulted from (1) allophonic splits of two other qualities, and, in consequence, (2a) establishment of contrast in one position in the word (initial syllable) when the conditioning element of one allophonic type was lost, and (2b) identity of this latter allophonic type with the results of other changes in another position in the word. The allophonic splits were motivated by following retroflex consonants. A similar phonemic result took place also when the vowels were followed by **r*, but it does not seem possible to demonstrate that this alveolar trill consonant could have motivated an allophonic split similar to that caused by the retroflexes. The operative cause of the vowel change before **r* still remains obscure.

10. There still remain a very few unexplained instances of high back unrounded vowels.

The echo-morpheme in Koḍagu is *gï/ï·-*, which corresponds to forms with *i/i·* in the other languages.[12] Since the echo-word formation is *gï/ï·-X*, in which *X* represents any phonemic sequence that may occur in words symbolized as *CV̆X*, those instances of *X* which begin with a retroflex consonant or with **r* provided conditions for those changes of **i/i·* to *ï/ï·* which are set forth in §4(3a) and (4). We may postulate, then, that these forms were the basis for analogical spread of *ï/ï·* to all echo-forms.

In two forms that have *ï*, 2184 jïṭï '*back hair*' and 2740 tïmm- '*to sneeze*'

(but the Mercara dialect has tumm-), it results from **u;* no explanation is at hand.

In one form beginning with *b-* (from **v*-), viz. 4540 (north and south) bodï, (central dialect) bedï '*heat of sun*', **e* appears as *o*, with no explanation possible in terms of the statements already made; even here there is a dialectal form without change, and the related froms all have *e* or *e·:* be·y-(beñj-) '*to be warmed*, (*rice*) *cooks*', bey- (bep-, bec-) '*to cook* (*rice*)', beke '*warmness, heat'*, be·nï ka·la '*hot season*'. Another etymological possibility suggests itself, which was not envisaged in *DED* or *DEDS*. This is that bodï, which from its distribution in northern and southern dialects might seem to be the more original form, belongs with 3724 *poṟutu (i.e. *poṟudu) '*sun, day, time*'. It would have lost the short vowel between **ṟ* and **d* (cf. Ka. poṟtu, *etc.*, Tu. portu), and then simplified **ṟd* to *d* (cf. Te. podu and CDr. forms pod/podu), according to the statement arrived at previously in "The South Dravidian languages", n. 12. There seems to be no reason to expect *b-* rather than *p-*, and this would be best explained by assuming contamination with the words in 4540, to yield both *b-* and the vowel of the central dialect form bedï. The other forms recorded for 3724 in Koḍagu, viz. poḷïdï and po·dï, used for several ceremonies of an auspicious nature, are probably borrowed from Malayalam poṟutu and pōtu, the former being used also for an '*auspicious time*'. Certainly the Koḍagu putëri po·dï, *the rice-harvest festival*, seems to have a Malayalam name, i.e. 3511 Ma. puttari '*new rice*', since the Koḍagu word for '*rice*' is not the Ta. Ma. Tu. ari, but aki (cf. Ka. akki, Ko. aky, To. ašky<*arki<*ariki). The meaning '*heat of the sun*' for Koḍ. bodï is not otherwise found in 3724, but this may well be a minor difficulty. In any case, in whichever entry bodï/bedï are placed, there are difficulties of one sort or another. (The Koḍagu word for '*sun*' is ne·ra, recorded in *DED* 3128.)

11. It might have been possible to arrive at some of the foregoing results in part by the technique of internal reconstruction (IR). I.e. the two extra vowels could in part be traced to their original places in a five-vowel system, which could then have been identified as PDr. or PSDr (Proto-South Dravidian). The essentially complementary distribution statements (1) and (2a) in §3, i.e. before retroflexes no occurrence of back unrounded vowels in contrast with front unrounded vowels after palatal consonants, and no occurrence of front unrounded vowels in contrast with back unrounded vowels after other consonants (except for labials), together with the morphemically bound status of back unrounded vowels in other contexts than before retroflexes, as stated at the end of §3(2), should lead to an interpretation of back unrounded vowels as derived from front unrounded vowels in the retroflex context. Statement (2b), that after labial consonants and before retroflexes neither front nor back unrounded vowels occur, could lead to a similar reconstruction for some of the occurrences of back rounded vowels in this context, though, since there are numerous instances of back rounded vowels before retroflexes and after all other types of consonants, it would not be possible to discriminate between

those instances that result after labials from original front unrounded vowels and from original back rounded vowels. This IR suggestion should be enlarged, of course, to include those instances in (2a) with no initial consonant, and also those instances with **r̲* instead of a retroflex (cf. §4(4)).

Examples of such IR are the following, usually with the IR result identical with PDr. (or PSDr.):

të·ḍ- '*to search*'<*te·ḍ- (2844)
këṭ- '*to tie, build*'<*keṭ- (961)
tï·ṭ- '*to rub, stroke*'<*ti·ṭ- (2678)
ïḷi- '*to descend*'<*iḷˣi- (426; PDr. *iṟi- cannot be achieved, since one cannot discriminate between IR *$ḷ^1$ and *$ḷ^2$ on the evidence of this Koḍagu form).[13]

Examples of the ambiguity in (2b) are:

muṇḍë/muṇḍïga·rë '*paramour*'<*mi/uṇḍ- (<**i*; 3980, cf. Ka. miṇḍa/miṇḍagāṟa)
muṇḍï '*waistcloth*'<*mi/uṇḍu (<**u*; 4052, cf. Ta. Ma. muṇṭu, Ka. Tu. muṇḍu)
muṇḍe '*screwpine*'<*mi/uṇḍay (<**u*; 4098, cf. Ta. muṇṭakam, Tu. muṇḍayi)

The distribution stated in (2a) allows IR derivation of the back unrounded vowels before retroflexes from front unrounded vowels. Before other consonants than retroflexes, and after *zero* or after consonants other than palatals or labials, there is contrast between these two sets of vowels (a few examples were given in §2, on phonemic contrasts). A considerable number of the back unrounded vowels in these latter contexts yield to IR analysis as derivations from front unrounded vowels, by examination of morphological sets in which they occur, which leads to establishment of morphophonemic statements of simplification of consonant clusters by loss of a retroflex. For example, kë·ku '*may ask/hear*' is derivable from *ke·ḷ¹k- in this way by comparison with the 2sg. imperative kë·ḷï; **e*· before the retroflex>*ë*·, and after a long vowel **ḷk*>*k*, by loss of **ḷ* (whether *$ḷ^1$ or *$ḷ^2$) as part of a larger series of morphophonemic statements. Similarly ëddë '*I got up*' is derivable from *eḷ²d- by comparison with the 2sg. imperative ë·ḷï, with **e* before retroflex>*ë*, and after short vowel **ḷ²d* > *dd*.

But numerous instances of back unrounded vowels in these contexts do not yield at all to IR. Moreover, these vowels in final syllables do not yield at all. In final position *-ë* is in contrast with *-e*; there seems to be no clue to its dual genetic derivation from **-an* and **-en*. Final *-ï* is in contrast with *-i* and *-u*; in the noun class there are very few examples of *-u*, and it may be suspected that *-ï* is derivable from **-u*, but this is guessing rather than IR, and it is only the comparative technique that gives a firm answer.

12. It would be less than candid to suggest to the reader that this analysis in terms of internal reconstruction is in fact anything but an *ex post facto* restatement of conclusions that were arrived at almost entirely by the com-

parative technique of etymological studies that are recorded in *DED*. Curiosity about the heuristic possibilities of the IR technique led the author to make an attempt to see how far the description of the material leads in this direction without reference to the knowledge gained from the comparative treatment. It seems to lead quite far, and yet it is uncertain whether the author's ingenuity would have been sufficient to achieve this much without the direction given by the knowledge of the comparative solution. Specifically, in principle a distributional treatment of the Koḍagu phonemes should point to the PDr. vowel phonemes which were split allophonically because of the flanking consonant phonemes, and then to the simplification of consonant clusters with partial loss of the consonant phonemes that determined the split and the consequent reallocation of vowel allophones as new vowel phonemes. In practice, however, there are sufficient disturbing exceptions in the data to obscure some of the steps, these being identifiable however from knowledge derived from the comparative treatment. It remains uncertain, then, just how much of the internal reconstruction could have been arrived at independently of the comparative method, without the hindsight that the results of the search for Dravidian etymologies inevitably injected into the situation. Internal reconstruction of Indo-European data probably suffers from the same suspicion in almost all instances: it is restatement of data already organized by the comparative technique. This is not, of course, to say that internal reconstruction may not lead to presumptive historical statement in the handling of data for which the application of the comparative method is not feasible. Indeed, both methods should always be kept firmly in mind in comparative work, lest something of value be missed by neglecting one or the other.

13. There has already been a hint that ordering of the historical statements is partially within our grasp. The genetic statement (1) of §4 must precede statement (2) in order to account for maḷu. Likewise, statement (1) must precede statement (3) in order to remove the items attesting the former from the operation of the latter rule. Since, however, there is no contact between (2) and (3), a relative ordering of these two is impossible. Again, within (3), the two statements (a) and (b) are presumably simultaneous since they are complementary, though there is no evidence that would prevent (3b) from being the result of two successive steps, e.g. $*i > *\ddot{i}$, and then by subsequent labialization $*\ddot{i} > u$. Any decision between these two possibilities for (3b) could only be made on *a priori* grounds having to do with bifurcation as a necessary form of statement. Statement (4) might be simultaneous with (3), but so far no phonetic reasons have been found that would require the alveolar $*r$ to have the same effects on vowels that the retroflexes have. In final syllables the contractions that yielded *u* (from **a/ugu* and **a/uvu*) should be capable of being ordered relatively to $*u > -\ddot{i}$ in Koḍagu. Unfortunately, the suspicion that after **v* the final **-u* never had high back unrounded quality (i.e. never was *-ï*) and that **-g-* fell together with *-v-*, at least in some

contexts, complicates the matter beyond the possibility of a present solution. In stating (3) it has been suggested that the vowel changes of this statement preceded the simplification of consonant clusters with initial retroflexes (e.g. **ḷd>dd*); though this has not been worked out in detail, it is almost certain that this is the necessary ordering.

14. It was already noted by L.V. Ramaswami Aiyar[14] that in Tulu, after labials **e>o* and **i>u*; this statement should have added that a retroflex must follow the vowel, since this was true of all his examples (3608 poṇṇu, 4524 boḷpu, 3631 pōḍi-, 4548 bōḍu, 4419 buḍu-, 4460 buḷpu-, 4464 buḷè, 4457 būr-). Godavarma (p. 421) compared this Tulu phenomenon with that of Koḍagu, and noted also that some dialects of Tamil and Malayalam also show the results of similar changes.

The data in Tulu are extensive. They may be identified here by *DED* references. Items in which Tulu and Koḍagu share the change are: **i>u*, after *p-* 3412, 3440, after *m-* 3975, after *b-* (<**v-*) 4419; **i·>u·*, after b- 4419, 4457; **e>o*, after *p-* 3608, after *b-* 4464, 4511, 4524; **e·>o·*, after *p-* 3631, after *b-* 4547, 4548. Additional items in which only Tulu shows the changes: **i>u*, after *p-* 3420, 3429, 3432, 3443 (*DEDS* puḷuku '*slipping out, anything soft or greasy*'), 3446, 3449, S711 buṇa '*peg, wedge*' (: Ka. beṇe '*peg, plug, cork*';? **p-* or **v-*), after *b-* 4459, 4460, 4464; *i·>u·*, after *b-* 4482, 4491 (Tu. *ṭ*<**rr*); **e>o*, after *p-* 3604, after *b-* 4337, 4503, 4505, 4507, 4509, 4525, 4527, 4529, 4534. Even though Tulu has probably more examples than Koḍagu, there are still numerous exceptions in Tulu to the rules which Koḍagu follows.

It is notable also that in a number of the entries listed Tulu shows both the original and the changed vowel (4524, to give only one example of many). Frequently the forms with unchanged vowel are matched in Kannaḍa, and it is probable that there has been much borrowing from Kannaḍa to obscure the development. Whether L.V. Ramaswami Aiyar's indication (p. 396) of Tulu dialectal differences for some of the forms with *o* and ō must be taken into consideration, is uncertain, since neither of the two examples that he gives (3608 and 3631) shows in the Tulu dictionary any difference of form except for obvious borrowings from Kannaḍa in 3631 (forms with Kannaḍa initial *h-* instead of the expected Tulu *p-*).

It is also to be noted that there are fairly numerous sets of etyma in which variation after labials between the front unrounded vowels and the back rounded vowels spreads through more languages than those now under consideration. E.g. 3423 shows both **piṇ-* and **puṇ-* in Ta. Ma. Ka. Te. and only **puṇ-* in Tulu.

However, leaving aside all these qualifications, the fact remains that the contiguous languages Koḍagu and Tulu have a greater number of instances of these changes than any other of the languages. They have a considerable number of etyma in common, and would have more if the Koḍagu material were as extensive as the Tulu, since it is to be expected from the great regula-

rity of the Koḍagu changes that additional items showing the same conditions would show the same changes. Tulu is still not systematically enough known to allow one to judge of its regularities and exceptions.

We have then an isogloss that cuts off Koḍagu and Tulu from the rest of the languages. Convergence in contiguous languages argues diffusion as the explanation. In this instance it is clear that Tuḷuva brahmins have long been the officiants at Hindu temples in the Coorg territory (e.g. that at the source of the Kaveri river and that in Mercara). The conditions are correct for arguing that there could be Tulu linguistic influence on Koḍagu, and I think that it is correct to suggest this influence as a source of the 'a real' convergence for this vowel development which was noted already in my earlier treatment of Koḍagu-Tulu relations in "The South Dravidian languages", §1.9.

(This paper was finished in the summer and early fall of 1967. A Seminar on Comparative Dravidian was held at the Centre of Advanced Study in Linguistics, Annamalai University (Madras State), during January 11-14, 1968. Owing to the kindness of the Director of the Centre, Professor S. Agesthialingom, I received a mimeographed set of the papers some months later. One by Tiru P. Kothandaraman on "Koḍagu vowels" deals with the same subject as my paper, and the two papers overlap to some extent in the material presented and the statements made. My method, however, is in many respects different from that of Tiru Kothandaraman, and I judge that scholarship will be advanced if both papers should be published.)

NOTES

1. For discussion of its exact place in the subgroup, see my paper "The South Dravidian languages", *JAOS* 87.4 (1967), 365-413. In that paper much analysis of the verb structure has been given, as well as a complete presentation of the verb list, containing basic stem and past stem for all verbs and also the present-future stem for the verbs of certain classes. Much other Koḍagu material is given in passing in that paper. Practically all material in the present paper is available in Burrow and Emeneau, *A Dravidian Etymological Dictionary* (1961; referred to as *DED*), in id., *A Dravidian Etymological Dictionary*: *Supplement* (1968; referred to as *DEDS*), or in Emeneau and Burrow, *Dravidian Borrowings from Indo-Aryan* (UCPL 26, 1962; referred to as *DBIA*). A few items have been drawn from a paper that escaped my notice previously, viz. K. Goda Varma, "Studies in Coorg vowels", *Dr. C. Kunhan Raja Presentation Volume* (1946), pp. 418-22 (referred to as Godavarma). This latter paper states some of the historical changes; however, my own statement was worked out before I discovered (or re-discovered) the paper, and contains much more material than does Godavarma's treatment.

For the consonants of Koḍagu I use here a notation which I proposed in "The South Dravidian languages", but which differs somewhat from that in *DED*, *DEDS* and *DBIA*. The difference between the two systems is that in *DED*, etc. voiceless stops are written double after short vowels and single after long vowels. This difference of length is complementary, except for a very few occurrences of short stops after short vowels, all these latter being, it is thought, the result of borrowing. This non-contrastive difference is neglected in the present paper. The voiced stops, as well as all the other consonants except *r*, have a contrastive difference of length after short vowels (though not after long vowels); this must be written.

2. In this position *-o* is rare, possibly occurring only in some song-phrases as a syllabic filler of uncertain meaning; e.g. obbën uḷḷë ba·lëno '*one boy*' (lit. one-person who-is boy, i.e. boy who is one person).

3. In one section of his "Dravidic sandhi", that in *Quarterly Journal of the Mythic Society* 26.91-112 (1935-36). He repeated parts of this elsewhere, and applied it to Tulu in "Materials for a sketch of Tulu phonology", *Indian Linguistics* 6.436-7 (1936).

The first element in Koḍ. pu·-bekï '*civet cat*' (3538) still needs explanation. It probably represents *puṟu as seen in Ma. Ka. puṟu, but the conditions for the different development from that of *puṟu '*worm*' > puḷu are still unclear, and Ta. Ma. puṟuku (i.e. puṟugu) must be noted also.

3a. [Final *-u* of hypocoristics, e.g. Ayyu, Co·ndu, is in contrast with *-ï*; see Emeneau, *JAOS* 96.11 (1976), 98.120, n. 11 (1978).]

4. It may be noted that some other final consonants disappear in utterance final but reappear morphophonemically in some other contexts; e.g. maka '*children*': makaḷ-u; aka '*then*': akal-u; obba '*one woman*': accusative obbaḷ-a; ava '*that woman*': accusative avaḷ-a.

The conjunctive suffix is most certainly a feature of PDr. syntax. Apart from the forms already cited there are: Tu. *-lā*, Te. *-nu* or lengthening of a final vowel, Kui *-ve*, Konḍa *-ŋ* (I owe this to study of the proofs of part of Bh. Krishnamurti's forthcoming book on this language). Reconstruction of the morpheme cannot be achieved with certainty beyond SDr. However, Kurukh has an emphatic suffix *V*]*-m*, *C*]*-im*. Brahui (h)um '*also*' (Bray p. 229, §435) follows a pronoun in both Bray's examples; in one of the examples there is repetition very like the SDr. repeated construction translated '*and*': ī hum. . ., kanā mār um. . . '*not only I. . ., but my son . . .*', i.e. '*I. . ., and my son. . .*' We may be justified on the basis of SDr. and Brahui, plus the partially agreeing Kurukh, in reconstructing a morpheme of this shape, as well as the construction, for PDr. —

5. In the last examples ^{n} represents nasalization of all preceding phonemes.

All nouns denoting males, with *-ē*, derive from forms in **-an*. The female kin-term avvë '*mother*' (accusative avvëna) probably has *-ë* by analogy with the paired male kin-term apë '*father*'; akë '*elder sister*' may be inherited, rather than analogical with aṇṇë '*elder brother*', since Kota has akn and Toda okn (the inscriptional form Ta. akkaṉ is probably of no value as evidence in this connexion). A few animal names have *-ë* from **-an* (or **-ān*): 243, 887, 935, 1280, 1537, 1660, 1820, 3871; even these may be in origin names of males (cf. 986 kaṇḍë '*male of dogs and some wild animals*': Ta. kaṇṭaṉ, Ka. gaṇḍa). There still remain some forms with unexplained *-ë*.

6. For the Tamil phonetics, see A.H. Arden, *A Progressive Grammar of Common Tamil* (4th ed., 1934), Appendix by J.R. Firth, p. xxx.

7. This type of distribution is seen for other features beside this one; it is leads to splitting South Dravidian into Kannaḍa as opposed to the rest of the SDr. languages in "The South Dravidian languages".

8. Reference in n. 6, p. xxii.

9. *Kolami, a Dravidian Language*, p. 6, §2.2.

10. I hope that my somewhat subjective interpretation of tongue conformations agrees with the data published by Švarný and Zvelebil, "Some remarks on the articulation of the 'cerebral' consonants in Indian languages, especially in Tamil", *Archiv Orientální* 23.374-434 (1955), 12 plates; but, in fact, the point at issue here was not treated specifically by these two scholars.

11. I must ignore the wildly exotic developments in Toda, since they seem so far not to be very closely analogous to those of Koḍagu, and in any case the two languages were isolated from one another by their geographical situations.

12. See my papers: "Echo-words in Toda", *New Indian Antiquary* 1.109-17 (1938); "An echo-word motif in Dravidian folk-tales", *JAOS* 58.553-70 (1938); "Another example of the echo-word motif in Dravidian folktales", ibid. 59.503-5 (1939).

13. For internal reconstruction of **l*^{1} and **l*^{2} in Koḍagu, see "The South Dravidian languages", §2.35, last para.

14. *Indian Linguistics* 6.396, 434-5.

CHAPTER XI

KODAGU AND BRAHUI DEVELOPMENTS OF PROTO-DRAVIDIAN *ṟ*

0. THE PROTO-DRAVIDIAN (PDr.) phoneme **ṟ* has been treated in considerable detail by a number of scholars. Most recently, Krishnamurti (1958) produced a treatment ranging over the whole family, Burrow (1968) investigated in very searching and definitive fashion the reflexes in the two North Dravidian (NDr.) languages Kurukh and Malto, and he and S. Bhattacharya (1963) have discussed the reflexes in Kuwi. Similar searching treatment is still a desideratum for a number of the languages. In this paper the somewhat simple and straightforward situation in Koḍagu is presented, and an attempt is made also on the much more difficult situation in Brahui, where this phoneme **ṟ* cannot be treated separately from **ṯ*, **r*, and **ṛ*.

A. *PDr. *ṟ in Koḍagu*

1. The commonest development of **ṟ* in Koḍagu is *ḷ*; this was stated by Krishnamurti 1958, p. 264, and is the only correspondence given in *DED*, p. xii. A more exact statement deals with two contexts: (a) intervocalic and (b) preceding other consonants. The intervocalic context is to be divided into two: the sequence **aṟi* and all other contexts.[1]

2. In the general intervocalic occurrence **ṟ* > Koḍ. *ḷ*. The instances are: 338 *a·ḷa* 'depth' (**āṟam*), 426 *ïḷi-* 'to descend, get ready', *ïḷïp-* 'to lower' (**iṟi-*), ? *aḷa-* (*-p-*, *-t-*) 'to sit down' (**iṟay-*; see Emeneau 1970, §4.1), 725 *ëḷïd-* 'to write' (**eṟutu-*), 772 *ë·ḷï* 'seven', *ëḷu-vadï* 'seventy' (**ëṟu*, **eṟu-*), 848 *oḷi-* 'to halt for the night, dwell' (**oṟi-*; see §3), 1252 *ka·ḷï* 'a grain' (**kāṟ-*; but said to be a Kannaḍa word), 1348 *kï·ḷï* 'lower, below', *kï·ḷ-a·ṇḍï* 'last year' (**kīṟ-*), 1511 *koḷa* 'flute' (**kuṟal*), 1592 *ku·ḷï* 'cooked rice' (**kūṟ-*), 2223a *cuḷi* ('leaf shoot' (**cuṟi*), 3046 *nëḷa* 'shade, shadow' (**niṟal*), 3296 *paḷe* 'old' (**paṟay*), 3381 *pa·ḷï* 'bad, ruined, lost' (**pāṟ-*), 3537 *puḷu* 'worm' (**puṟu*), 3543 *poḷe* 'river' (**pu/oṟay*), 3637 *po·ḷia* 'basketry box full of edibles, carried by girl of bridegroom's house to bride's house' (**pēṟ-*), 3724 *poḷïdï* 'an auspicious ceremony (including rice-harvest festival)' (**poṟutu*), 3893 *maḷe* 'rain' (**maṟay*), 4092 *moḷi* 'subject of talk or song' (**moṟi*), 4093 *moḷa* 'cubit' (**muṟam*), 4402 *ba·ḷï* 'way of life' (**vāṟ-*), 4403 *ba·ḷe* 'plantain' (**vāṟay*).

A number of 'irregular' verbs, which are given in §4, have **ṟ* final in root; this becomes *ḷ* in intervocalic position, but shows the pre-consonantal development in those forms which have suffixes beginning with a consonant.

* *Indo-Iranian Journal*, 13.176-98 (1971).

In two items *r* seems to represent **ṟ*. One of them, 4402 *barīkatï* 'prosperity', which belongs with **vāṟ-*, is clearly a borrowing from Tulu *barakatï* id., the two forms being the only items in this very long entry with the derivational material *-katï*; in Tulu *r* is a regular development for **ṟ*.

The other item is 2597 *ta·r-* (*ta·v-*/*ta·ruv-*, *ta·nd-*) 'to descend, (sun) sets', *ta·t-* 'to lower', which on the basis of obvious semantics were included in the entry **tāṟ-*. It is notable that, if the etymology is correct, the simplex is the only verb ending in **ṟ* which has *-v-*, *-nd-* in the present-future and past stems; otherwise there is *-v-*, *-dd-* and *-p-*, *-t-* (see the Koḍagu verb list in Emeneau 1967, appendix, and the analysis and discussion in §§2.35, 37, 3.13, 14). We should expect **ta·ḷ-* (*ta·v-*, **tadd-*). It now seems necessary to look elsewhere, and in fact 2608 provides a phonologically suitable form and suitable semantics: Ma. *tāṟuka* 'to sink, decline; become thin, grow cool, droop', *tāṟṟuka* 'to let sink or fall, kill', Te. *tāṟu* 'to fall away in flesh, become lean, diminish, be reduced; descend, alight'. Both Malayalam and Telugu have the physical meaning 'descend', even though both they and the other languages represented in the entry (Kota, Toda, Kannaḍa, Tulu) favor the metaphorically developed meaning rather than what must be assumed to be the original physical meaning.[2]

3. The sequence **aṟi* becomes Koḍ. *ay* before C or zero, and *ayy* before V. There are four instances: 1136 *kay-* (*-p-*, *-c-*) 'to remove, undo (knot)', *kayku* 'may ...', *kay* imperative 2sg. (**kaṟi-* [*-pp-*, *-tt-*]), 1142 *kay-* (*kayyuv-*, *kayñj-*) '(time) passes', (*-p-*, *-c-*) 'to pass (time), perform ceremony' (**kaṟi-* [*-v-*, *-nt-*; *-pp-*, *-tt-*]), 1143 *kay-* (*kayyuv-*, *kayñj-*) 'to be possible' (**kaṟi-* [*-v-*, *-nt-*]), 4335 *bay po·-* 'to wander aimlessly (lit. to go on the paths)', *bayya* 'behind, after', *bayyañji* 'after some time' (**vaṟi;* for the last two items, cf. especially the Tamil and Kannaḍa meanings 'afterwards, after').

The only exception to this development is 3297 *paḷi-* (*-v-*, *-ñj-*) 'to speak ill of'. It is accompanied by a doublet *paḷe-* (*paḷev-*, *paḷand-*) id. Neither conjugational type is that seen in Ta. *paṟi* (*-pp-*, *-tt-*), Ma. *paṟikka*; Ka. *paṟi* shows the derivational suffix *-i-*, but it is impossible to decide on Kannaḍa evidence between the Koḍagu *-v-*, *-ñj-* (i.e. **-nt-*) and Ta.-Ma. *-pp-*, *-tt-*. Several explanations are possible for the unexpected Koḍagu failure to show **pay-* from **paṟi-*. One is that the regular *paḷe-* (regular, since the sequence **aṟay* should become *aḷe*) provided an analogy for the retention of **ṟ* > *ḷ* in *paḷi-*. Another is that either modern Kannaḍa *haḷi* (if it exists; <*paṟi*) or Malayalam *paṟi-* is the origin of Koḍagu *ḷ* (which would certainly be recognized by Koḍagu speakers as the regular etymological equivalent of Ka. *ḷ*, Ma. *ṟ*), whether one states the process in terms of simple borrowing or of pressure exerted upon **pay-* either simply or in combination with *paḷe-*. A straightforward decision hardly seems possible, almost certainly not the third possibility, that initial *p-* inhibited the change found after *k-* and *b-* (the latter from **v-*); such a small corpus of relevant data hardly should yield in analysis such a refined, and presumably unmotivated, split in the conditioning

context. Once *paḷi-* is removed from consideration, it is possible to speak of a 'rule without exception' for **aṟi>ay/ayy*.

In addition, 848 *oy-* (*-p-*, *-c-*) 'to exhaust, finish' (a word found in songs): **oṟi-*, seems to show a parallel development. However, the word was said by the informants to be a Malayalam word (the relevant development in that language or some one of its dialects is not known to me). It is accompanied in entry 848 by a doublet *oḷi-* (*-v-*, *-ñj-*) 'to halt for the night, dwell' (see §2); apart from the regularity of phonological development in this latter word, the special Koḍagu meaning development (*'to cease, leave off; bring to an end'>'to halt [in one's travel]') seems to guarantee it as having the correct form. There is, in fact, one other example of the sequence **oṟi* with a Koḍagu etymon, and in all other occurring sequences with **i* following **ṟ*, Koḍagu shows **ṟ>ḷ* (see §2 for three sequences **iṟi, *uṟi, *oṟi*).

4. In all instances where **ṟ* immediately preceded a consonant, it was lost; the one exception, to be discussed below, is an analogical re-formation. It is not yet possible to discriminate accurately between the two classes of context of PDr., viz. that in which PDr. had the consonant cluster, and that in which a vowel (short), which intervened between **ṟ* and a following consonant in PDr., was lost in pre-Koḍagu. Some of the former class may possibly be identifiable (e.g. 4457 *bu·v-* probably represents Ta. *vīṟv-*); the problem must be kept in mind for further study.

In one class of seven verbs the root appears in some forms immediately followed by a vowel and then ends in *ḷ*, which is etymologically related to **ṟ* (see §2 for this development). In various other paradigmatic forms in which a consonantal suffix appears immediately after the root, **ṟ* is represented by zero. Sets for these verbs follow, consisting of root, 2sg. imperative, present-future stem, past stem, the 'may'-form, and for two verbs also a transitive stem:

427 *ï·ḷ-, ï·ḷï, ï·p-, ï·t-, ï·ku* 'to drag' (**īṟ-*);

592 *u·ḷ-, u·ḷï, up-, ut-, uku* 'to plow' (**ūṟ-/uṟ-*);

904 *o·ḷ-, o·ḷï, o·p-, o·t-, o·ku* 'to have intercourse with' (**ōṟ-*);[3]

3588 *pu·ḷ-, pu·ḷï, pu·p-, pu·t-, pu·ku* 'to bury' (**pūṟ-*);

723 *ë·ḷ-, ë·ḷï, ë·v-, ëdd-, ë·vu* 'to get up', *ëp-* 'to raise up, make to get up' (**ēṟ-/eṟ-*);

4402 *ba·ḷ-, ba·ḷï, ba·v-, badd-, ba·vu* 'to rule, (child) lives' (**vāṟ-/vaṟ-*);

4457 *bu·ḷ-, bu·ḷï, bu·v-, budd-, bu·vu* 'to fall', *bu·k-* 'to fell (tree), pour' (**vīṟ-/viṟ-*).

In Emeneau 1967, §§3.13, 14, these verbs were treated in some detail, and it was concluded that the last three in the list just given show an innovation in type that is common to Kannaḍa and Koḍagu. The points at issue there were the vowel quantity alternations and the consonant morphophonemics in the past stems.

The latter was stated as *ṟ+d>dd*, which is correct within the recorded history of Kannaḍa, and in the form **ṟ+*d>dd* is correct for Koḍagu.

Ka. *d* is, in fact, a resultant of PDr. or PSDr. **nt*, i.e. 723 Ka. *eṛd-* (>*edd-*) corresponds to Ta. *eṟunt-* (Ko. *eṛd-*, To. *öḍθ-*), 4457 Ka. *biṛd-* (>*bidd-*) corresponds to Ta. *viṟunt-* (To. *pïḍθ-*). Since Koḍagu should not show loss of nasal, the only plausible hypothesis is that it shows Kannaḍa influence in these two verbs, and that further it has analogically developed 4402 *baˑḷ-*, *badd-* (*badd-* corresponds to Ta. *vāṟnt-*; the unique To. *poḍ-*, *poḍθ-*, with *poḍθ-* theoretically from **vaṟunt-* and consequently entirely equivalent to Koḍ. *badd-*, if it is to be reconstructed for PSDr., is in fact unique in Toda and cannot safely be adduced as evidence for pre-Koḍagu). It is, then, not valid to set up a statement **ṟ+*nt*>Koḍ. *dd* for these verbs.

On the other hand, **ṟ+*tt*>Koḍ. *t* is correct for 427 *īˑt-* (Ma. *īṟtt-*, To. *iˑṣt-*) and 904 *oˑt-* (Ta. *ōtt-*, Ka. *ōt-*). There is reconstructive evidence also for **tt* in two of the verbs, even though Tamil has *t* (i.e. presumably **t*; an unsolved problem): 592 *ut-* (Ko. *uṛt-*, To. *uṣt-*, Ka. *uṟt-*, *utt-*, and a number of CDr. forms, e.g. Kol. *urt-*, Konḍa-Pengo-Kui-Kuwi *ṛūt-*; but Ta. *uṟut-*), 3588 *puˑt-* (Ka. *pūṟt-/hūt-*, but Ma. *pūṟuka,* which implies *t* rather than *tt;* the short-vowel forms in Ko. *puṛt-*, Kol. *purt-*, Kur. *putt-* are hardly evidence). It seems straightforward, moreover, to set up **ṟ+*pp*>*p*, **ṟ+*kk*>*k*, **ṟ+*v*>*v*, for the remainder of the paradigmatic forms in these verbs (e.g. in 723 the transitive *ëp-* corresponds to Ta. *eṟuppu*, Tu. *erp-*).

Additional items in part corroborate these statements straightforwardly, in part require some discussion and explanation. They add several further statements of development.

**ṟ+tt*>*t*:

1154 *kat-* 'to wash': **kaṟ-*; Ko. *kaṛt-* id. is the only other language with evidence for **tt*, but it seems to be good evidence.

1149 *kate* 'ass': **kaṟutay*: but the animal and its name may have come to be known in Coorg only through Kannaḍa influence, and Kannaḍa has *kaṟte*, *katte*.

3889 *matï* 'ax': **maṟu;* Ko. *maṛt*, To. *mošt* otherwise are the only languages with **tt* (**maṟuttu*).

2904 *to-* (*top-*, *tot-*) 'to salute': **toṟ-*; Ta.-Ma. have past suffix *-t-* (Ta. *toṟut-*), but the verb falls into the same class as 592 **uṟ-* above, i.e. **-tt-* is expected outside of Ta.-Ma., and Pengo now shows *ṭoḍ-*, *ṭoṭt-* 'to bow', which is probably good evidence for **-tt-*.

Two instances may give evidence for **ṟ+*t*>*d*, but both are uncertain on other grounds.

4402 *badïk-* 'to live, live happily', *badïkï* 'property'; the reconstruction would be **vaṟ-ut-ukku-*, but it has been suggested (Emeneau 1967, §3.14) that all instances of this formation outside of Kannaḍa and Telugu are borrowings from these two languages.

3724 *poˑdï* 'an auspicious ceremony (including rice-harvest festival)' (=*poḷïdï*, §2 above); cf. Ta. *pōṟtu*, Ta.-Ma. *pōtu*; it was suggested, on some-

what flimsy grounds, in Emeneau 1970, §10, that both *poḷïdï* and *po·dï* may be borrowings from Malayalam.[4]

**ṟ+*kk>k*:

3540 *puk-* 'to boil so as to loosen skin or husk': **puṟukku-*; there is good evidence for *kk* in Ta.-Ma. *puṟukku-*, To. *puṣk-*.

4096 *muk-* 'to dip (tr.) under water': **muṟukku-*; evidence for *kk* in Ta. *muṟukku-*, Ma. *muḷkku-*, Koṇḍa *muṛk-*.

4402 *ba·ke ku·ḍ-* '(woman) marries': **vāṟkkay;* cf. Ta. *vāṟkkai* 'happy state, married life', Ka. *bāṟke,* Tu. *bāḷkè*.

849 *ok-* 'to flow, float away': **oṟukku-*; Ka. *oṟku,* Ko. *ok-* look towards *kk,* even though Ta.-Ma. *oṟuku-* do not.

4169 *muk-* 'to smear (mud, manure on ground)': **meṟukku*; Ko. *mek-*, To. *mö̆šk-* look towards *kk,* though Ta.-Ma. have *meṟuku-*; Koḍ. *u* is in all probability the result of assimilation to the labial nature of *m-*, as in 3985 *mugg-*.

1348 *kïkïrë* 'junior member of house', *kï-kumme* 'lower stomach' (as opposed to *me-kumme* 'upper stomach' in a proverb; add *kumme* 'stomach' to *DEDS* S248): **kīṟ-/kiṟ-*.

1592 *ku·-kala, ku·-kuḍike* 'rice pot': **kūṟ-*.

One instance gives evidence for **ṟ+*k>gg:* 3076 *nugg-* 'to enter by force or without permission, go through (into cave)': **nuṟuk-*, which is required by Ka. *nurgu, nuggu,* Tu. *nurg-*, Koṇḍa-Pengo-Manḍa-Kuwi *ṛug-*. Somewhat uncertain is: 3985 *mugg-* 'to swallow': ?**mi/uṟuku-*; but all the other languages, south, central, and north, have evidence, not for **k*, but for **ṅk*.

**ṟ+*ṅk>* ŋg, in one clear case: 3537 *puŋg-* '(meat) becomes slightly decomposed, (sore) festers a little': **puṟuṅku-*; cf. Tu. *pur(u)ṅg-* (even though Malayalam has *puṟukka*).

4096 *muŋŋ-* 'to dive': **muṟuṅk-*; but **ṅk>*ŋg is so common otherwise and ŋŋ so uncommon, that it can be assumed that *muŋŋ-* is a borrowing from Ma. *muṅṅuka*.

**ṟ+*cc/c>c*:

4402 *ba·ce* 'act of living': **vāṟc/ccay*; Ma. *vāṟca,* but this in Tamil would be written **vāṟccai*.

**ṟ+*v>v* (see above) seems to be attested again in 772 *ëvvë* 'seven persons' (*vv* after v̆), which is only used in songs; it is the representative of Ta.-Ma. *eṟuvar*, and may well (along with the other numerals for persons in songs) be an archaism in song language, unless the whole series is borrowed, presumably from Malayalam. A different development, to *bb*, occurs in: 2543 *tabb-* 'to embrace': **taṟuvu*; is it a borrowing from Ka. *tabbu* (as is probably Ko. *dab-*)?

Possibly, however, a regular development of **ṟ-v* is to be seen in 3538 *pu·-bekï* 'civet-cat': **puṟu-veruku,* even though 4520 *bekï* 'jungle cats of various species' looks suspiciously like Ka. *berku, bekku* 'cat'.

No other instances of **ṟ+*pp>p* have been found except 1348 *kï-puṇi*

'lower level in a field' (: **kiṟ-*), and 1592 *ku·-padi* 'food carried in a plantain leaf as a lunch' (: *kūṟ-*).

In two instances **ṟ* is lost before *m*: 1348 *kī·-ma·ḍi* 'lower storey' and 4402 *ba·-mane* 'house into which bride marries' (**vāṟ-*).

In three instances there is a long vowel resultant upon loss of **ṟ;* there is no explanation.

3538 *pu·-bekĭ* 'civet-cat': **puṟu-*; it is to be remembered that 3537 **puṟu* 'worm' > Koḍ. *puḷu.*

593 *u·k-* 'to comb': **uṟu-*; there is no parallel for a suffix **-kk-* in this verb, and no reason to be seen for a different vowel development from that in 3540 *puk-* (**puṟukku-*) and 4096 *muk-* (**muṟukku-*).

426 *ĭ·p-* (Mercara dialect) 'to lower', transitive of *ĭḷi-* and equal to *ĭḷĭp-* of other dialects; cf. Ka. *iṟi/a/upu*, Kol. *dip-*, Nk. *ḍipp-*, Kui *dip-*; for the quantity, contrast 723 *ëp-*, transitive of *ë·ḷ-*, alongside Ta. *eṟuppu.*

The rule of loss of **ṟ* operates before the exemplified consonants, **kk, *pp, *tt, *t*(?), **k, *ṅk, *cc/c, *v, *m.* We may probably generalize and say 'all consonants that occur in the morphology'.[5] Only one exception has been found, viz. 772 *ë·ḷ-ṇu·rĭ* 'seven hundred'; if a form ever existed with **ṟ* lost before **n* (and probably **eṟ-* rather than **ēṟ-*; cf. Ta. *eṟu- nūṟu*), it has been remade on the analogy of *ë·ḷĭ* 'seven'.

B. *Brahui developments of PDr.* *ṟ, *ṯ, *r, *ṟ

5. In spite of prior treatments statement of the development of **ṟ* in Brahui remains unsatisfactory. In part this results from the small number of sure examples in Brahui's impoverished Dravidian vocabulary. However, a more nearly definitive statement of development should now be attempted, since it is probable that few Dravidian items (if any) will ever be added to what Bray recorded. His vocabulary has been combed repeatedly for *DED* and *DEDS*, and it seems improbable that many certain etymologies will be added to those already found. It is now possible to be certain of a few more examples of **ṟ* in Brahui than those listed by Krishnamurti (1958), and a fuller statement of correspondence can be given that that of *DED*, which was **ṟ*: Br. *r.* This correspondence was also given by Krishnamurti (1958, p. 280), along with one example of loss of **ṟ* and one example of voiceless *l* (spelled by Bray *lh*),[6] and by Burrow (1968, p. 63), who commented on Krishnamurti's statement but added nothing to it. The present treatment is based on the now somewhat larger number of examples. It makes a decided advance in that it demonstrates the convergence of several PDr. phonemes (**ṟ, *ṯ, *r, *ṟ*) into two overlapping sets of Brahui resultants, which when treated together lead to somewhat more certain statements than when each phoneme is treated separately. Some advance can be made in determining the conditions which led to splits in development, but unfortunately the nature of the material still leads in this matter to somewhat inconclusive results.

6. It is necessary to note the contrasts of phones that are found in the relevant material. Bray in both parts of his work (1909, 1934) was meticulous in recording contrast between three phones that he transcribed *r*, *rr*, and *ṛ*. When I made observations on the language, I found (1937) that he had indeed been exact and that there were three contrasts to be noted, whatever might have been the exact phonemic solution within the technique of that period. As I observed them, they were respectively a trill, a long trill, and a single-flap, all in a position just in front of the alveolar ridge; Bray (1909, p. 28), however, described *ṛ* as very strongly retroflexed on the hard palate, and there may well be dialect differences involved for *ṛ*. I add here (in Bray's transcription, which I use for all the material) some further examples of words with minimal or near-minimal contrasts: *pir* 'rain', *birr* 'wild, not tame'; *piring* 'to swell', *miring* 'to plaster', *birring* 'to separate out, pick out, select, distinguish', *miṛing* 'to drive out'; *darē* 'to cut, take away' (past tense), *narrā* 'to flee' (past tense), *taṛē* 'to cut, slaughter' (past tense); *dar* 'take away!', *daṛ* 'dismount!'; *kūring* 'to roll up (tr.)', *gūrring* 'to gurgle (of camels), groan'; *tōring* 'to hold, restrain', *pōrring* 'to hatch'.

The status of *ḍ* is not clear. It occurs in initial position, whereas *ṛ* does not. Bray (1934, p. 253, s.v. *-ṛ-*) states that 'occasionally' *ṛ* and *ḍ* alternate, e.g. *pōṛ* and *pōḍ* 'clod of earth'. In medial position, almost without exception, *ḍḍ* occurs after short vowels, *ḍ* after long vowels. This, combined with Bray's statement (1909, p. 30) that certain consonants are 'frequently doubled' when preceded by a short vowel, whether the consonants are medial or final,[7] and a statement on the noun plural formation (1909, pp. 38f.) that nouns ending in V̆*ḍ* show such doubling in the plural (suffix *-āk*) as well as in other formations with suffixes beginning with a vowel, makes it fairly certain that *ḍ* and *ḍḍ* are contextually conditioned and in complementary distribution. It is not, however, possible to consider that *ṛ* and *ḍ*/*ḍḍ* are in complementary distribution, since a small number of pairs of forms show near-minimal contrast, e.g. *guḍḍing* 'to chop off' : *guṛing* 'to be scared'; *traḍḍing* 'to prance' : *taṛing* 'to cut', *saṛing* 'to rot'. Most of the *ḍ*/*ḍḍ* examples are of Indo-Aryan origin, but so are most of the *ṛ* examples; *taṛing*, just quoted, is Dravidian, but there is so far no etymology for *traḍḍing*.[8] It is not possible, on the basis of our etymological knowledge of the moment, to achieve economy by positing membership of *ḍ* and *ṛ* in two co-existent systems; they must be considered to be two entities within the same system.

7. In what follows developments already demonstrated may be taken for granted, including the Brahui vowel developments in Emeneau 1962: **e* : *a* (§2.14), *i* (§2.15), **o* : *õ* (§2.23), *u* (§2.24), *a* (§2.25); and the alternations of long and short vowels in Krishnamurti 1955.

8. The developments of **ṛ* are as follows:

(a) **ṛ*: Br. *r*; three items:
723 *harfing* 'to raise': **eṛuv-*.

1348 *kēragh* 'lower side, below': **kīṛ-*.

4169 *miring* 'to plaster': **meṛ-*.

(b) **ṛ*: Br. *rr*; two items (cf. also 929 in §12b):

1511 *khurrum* 'grain-pit': **kuṛ-* (cf. the various words for 'hole, pit' in this large entry; a new suggestion by T. Burrow, better in meaning and form than Bray's guess of Persian origin).

1787 *kharring* 'to sprout', *kharrum* 'green, blue, black and blue, fruitful', *kharrunī* 'greenness; wife': **koṛ-* (delete from 1140, in *DEDS*; this is a third instance of **o*: Br. *a*).

(c) Three items have *r*, with metathesis/aphaeresis affecting the position of *r* (see §15):

427 *rūsing* 'to pull off': **iṛuc-* (cf. Te. *īḍucu,* Konḍa *īṛis-*, Kur. *ic-*, Malto *ic-, -ic-*; for Kur.-Malt. loss of **ṛ*, Burrow 1968, p. 68; the query before Br. in *DED* should most probably be deleted).

2545 *trikking* 'to sprout, protrude', *trikk* 'sprouting, shoot': **taṛay-* (for **ay*: Br. *i*, cf. Emeneau 1962, p. 36, n. 21; the query before Br. in *DEDS* should most probably be deleted).

3440a *princing* 'to squeeze, massage': **piṛi-* (cf. Tu. *pur(e)ñc-,* Kuwi *pīc-*).

(d) Four items show loss of **ṛ*, the first two of them having doublets with *r* given above in (a) (for discussion of the doublets see §16):

723 *hēfing = harfing*: **ēṛ-v-*.

1348 *ki-, kī-, kē-* 'below': **kīṛ-, kiṛu-*.

3537 *pū* 'worm, maggot, caterpillar': **puṛu*.

2597 *tamming* 'to fall, etc.', with which Kur. *tammnā* 'to cease, be assuaged (of fever, headache, etc.)' must be put (Krishnamurti 1958, p. 290; Burrow 1968, p. 67, with a query): **tāṛ-*, **taṛ-*V- (presumably **taṛ-um-*; cf. Krishnamurti 1961, pp. 155-7).

(e) **ṛ*: Br. *ṛ*; three items:

3423a *pēṛing* 'to roll around': **pēṛ-*/**pēṇ* (cf. Te. *pēḍu, pēnu*).

3440b *bīṛing* 'to milk': **vīṛ-* (on Kur. *bīn-*, Burrow 1968, p. 67).

2597 *daṛing, daṛinging, daṛanging* 'to get down, go down; descend, dismount', *daṛifing* 'to make to get down, descend, etc., knock down, raze to the ground': **tāṛ-, *taṛ-*V- (for **t-*: *d-*, see the discussion in §12b; these items are in *DED* 426, 439 with a query and should be shifted to 2597).

(f) **ṛ*: Br. *ḍ*, which is written *ḍḍ* before a vowel; one item:

3445 *piḍ* 'belly, stomach': **piṛ-* (for discussion, see §18).[9]

9. Apart from the last four items, in §8e and f, with correspondences *ṛ* and *ḍ*, the correspondences for **ṛ*, viz. *r* and *rr* and zero, are those for **r* and **ṛ* also.

10. The developments of **r* are as follows:

(a) **r*: Br. *r*; fifteen certain items, three uncertain (at the end of this section):

401 *iraṭ* 'two (entities)': **iraṭṭ-*.

415 *iragh* 'bread, food': **iray*.

419 *iris* 'a comb': Kur. Malt. *irc-* 'to scratch', Go. (Mu. Elwin) *irs-*, (Ko.) *iṛs-* 'to comb'.

573a *ūri/ēnging* 'to swell up': **ūr-*.

702 *ar-ē-* 'emphatic present' stem of *anning* 'to be': **er-* (Emeneau 1962, §3.24).

2211 *kūring* 'to roll up (tr.)': **cūr-*.

2526 *tir-* stem of *tining* 'to give', *hataring* 'to bring': **teyr-*, **tar-* (Emeneau 1962, § 3.21).

3057 *dīr* 'water': **nīr*.

3106 *ditar* 'blood': **nettV̆r* (V̆ probably *e*).

3127 *dar*, *darē-* imperative and past of *danning* 'to cut, take away, remove': **ner-*V-.

3435 *pirghing* 'to break': **piri-*.

3436 *pirghing* 'to twist': **piri-*.

3613 *piring* 'to swell': **per-*.

3864 *margh* 'horn': **mar ... k* (Kur. Malt. for *g*; Ta. *maruppu*).

4311 *bar-* allomorph of *banning* 'to come': **var-*.

1227 *kharēn* 'bitter': **kār/*kar-*V-; but it may belong with 952 **kaṭ-* (cf. §12a; the cross-reference was omitted in both *DED* and *DEDS*).

1670 *khēr* 'behind': Te. *krēva*, Pa. *keri*, Kui *kēri* 'side' (the meaning causes doubt).

1688 *kakāring* 'to cackle': **kokkar-* (the velar stop is dubious, instead of *kh*).

(b) **r*: Br. *rr*; six certain instances, one uncertain (at the end of this section):

1496 *khurrukāv* 'a snore': **kur-*.

2213 *kurring*, *kurrēnging* 'to shrink from, keep back, withhold': **curuṅku-*.

2353 *curring* 'to flow, gush': **cōr-/*cor-*V-.

2980 *narring* 'to flee': **(n)ar-*.

3706 *pōrring* 'to hatch': **pōr-*.

3865 *marring* 'to obey', *marrī* 'tame': **mar-*.

4076 *marrām* 'shout, fame': **mor-* (there is slight evidence for *o*, but *u* is better attested, hence uncertainty about the etymology).

(c) Two items have *r* with metathesis (see §15):

2353 *tramp*, *trump* 'drop of water': **cōr-/*cor-*V- (some other languages have *t-*; the query in *DED* could be deleted).

2653 *trikking* 'to wither up, fade': **ti/erakk-*.

(d) A number of instances show loss of *r* (for discussion, see §16):

3128 *dē* 'sun, day, time': **nēr-* (deleted in *DEDS* from 2371; Krishnamurti 1968).

Plurals of nouns ending in *r* have the plural absolute suffix *-k*, oblique *-t-*, with loss of *r* (Bray 1909, pp. 40-1), e.g. 479 *(h)ōr*, pl. *(h)ōk*, *(h)ōt-*: **ukir*; 3057 *dīr*, pl. *dīk*, *dīt-*: **nīr*; 3106 *ditar*, pl. *ditak*, *ditatt-*: **nettV̆r*.

Some of the *n/r* verbs show clearly a historical loss of *r* in some forms, e.g. 3127 *danning* 'to cut, take' and 2526 *tining* 'to give', *hatining* 'to bring'

have present indefinite stems *dē-* and *tē-*, *hatē-*, which may have lost *r* before *k* of 3sg. present-future, i.e. **dēr-k>dēk*, **tēr-k>tēk* (dialectal), *hatēk*. In a discussion of the problem in Emeneau 1962, p. 39, it was suggested that the negative stems of these verbs, *dapp-*, *datt-* (to *danning*), *tif-*, *tit-* (to *tining*), as well as *baf-*, *bat-* (to *banning* 'to come', **var-* 4311), also have loss of *r* before *pp*, *tt*, *f*, *t*; this should have been backed up then by the negative stems *tipp-*, *titt-* of the verb *cāing* 'to understand, know, regard', which are derived from 2815 **ter-*.

11. The developments of **ṛ* are as follows;

(a) **ṛ*: Br. *r*; eight certain items, one uncertain item (at the end of this section):

610 *huring*, imperative *hur,* past *hurā* 'to look, wait for, consider': **uṛ-*.

777 *arē* 'male, person, husband': **ēṛu* (the alternation **ē*: *a* is discussed in Emeneau 1962, §2.14).

1175 *khar* 'angry': **kaṛ-*.

1329 *kirēng* 'abuse', *kirk* 'grudge, rancour': **ki/eṛ-* (there is evidence looking to each of the vowels, and either would yield Br. *i*, though **i* accounts better for Br. *k* rather than *kh*).

3109 *darō* 'yesterday': **neṛ-*.

3610 *pir* 'rain': **piṛ-* (*DEDS* gives further evidence for **ṛ*, including Koṇḍa *piṛu*).

3901 *mār* 'son, boy': **maṛi*.

4538 *bīra* 'simply, just': **veṛ-*.

4355a *bārring, bārringing* 'to become dry, ripen (of corn), wither', *bārifing* 'to make dry', *bārun* 'dry, ripe, shrivelled up, barren': **vāṛ-*. Although both *r* and *rr* occur, Bray (1909, p. 117) stated that the base of the simplex verb is *bār-* and that only the infinitive has *rr*—a lengthening not paralleled in any other verb in *r*, but seen in some, though not all, verbs ending in *l*; the doublet *bārring-ing* is undoubtedly formed directly from the intransitive infinitive *bārr-ing*, rather than from the base. Whatever the origin of *rr* may be in this verb, the item as a whole seems to be an instance of **ṛ*: Br. *r*.

(b) **ṛ*: Br. *rr*; four certain instances, one uncertain item (at the end of this section):

265 *harrifing* 'to ask': **aṛi-*.

266 *harring* 'to tear': **aṛu-*.

4536 *birr* 'wild, not tame, shy', *birrī* 'wildness': **veṛ-*.

4564 *birring* 'to separate out, select', *birve* 'sieve', *birvinging* 'to be sifted: **vēṛ-*, **veṛ*-V-. Since there are no occurrences at all in the language of *rr* followed by consonant, it is clear that **rr-v* yields *rv* and that this is an example of **ṛ*: Br. *rr*.

1538 *ghurring* 'to growl', *gūrring* 'to gurgle (of camels), groan loudly': **guṛ-*. Onomatopoeia has been suggested, but this *tout court* is not a sufficient account, since Dravidian has numerous similar forms, as does also Indo-Aryan, for which see Turner, *CDIAL*, nos. 4207 **guragura-* (including Sindhi

guraṇu, Hindi *gurrānā* 'to growl'), 4486 *ghuraghurāyatē*, 4487 *ghurati*, **ghōrati*, etc.; further investigation of onomatopoetics in the Indian linguistic area is still in order and may settle some uncertainties.

(c) One item has *r* with metathesis/aphaeresis (see §15):

2770 *trujjing* 'to choke': **tuṛ-*; for parallels to the palatal *jj*, note especially Kolami *turs-* 'to thrust through hole' and Kuwi (Su.) *cuc-* 'to block up'.

(d) A number of instances show loss of **ṛ*.

3901 *mār* 'son, boy' has plural absolute *māk*, oblique *māt-*: **maṛi*.

Of the *n/r* verbs there is clearly historical loss of **ṛ* in the negative stems of two verbs: 610 *(h)upp-*, *(h)utt-* (to *(h)uring/(h)unning* 'to look, wait for, consider'): **uṛ-*; 3914 *maf-*, *mat-* (to *manning* 'to become'): **maṛ-* (see Emeneau 1962, §3.23).

12. The developments of **ṭ* are as follows:

(a) **ṭ*: Br. *r*; one certain item (the first listed), three uncertain items:

2865 *tōring/tōning* 'to hold, maintain, restrain': **toṭ-*.

935 *kharmā* 'wolf': **kaṭam* . . . (? **kaṭaman* or **kaṭamān*); the phonology is probably perfect, but the meaning is very uncertain (otherwise 'sambar' or some other deer or antelope species or the like).

943 *kharās* 'bull, bullock': **kaṭac* . . . (various males of domesticated species occur in the *DED* entry, but those forms with **c* denote females).

952 *kharēn* 'bitter': *kaṭu*; but it may belong with 1227 **kār/*kar-*V- (cf. §10a).

(b) **ṭ*: Br. *rr*; an uncertain correspondence, since found only in two uncertain items:

929 *kharring* 'to proceed on foot, make one's way': **kaṭa-*. This was listed in *DED* 929 without a query. However, 1142 **kaṛ-* is at least as good phonologically as 929. Either seems possible semantically: 929 'to pass, cross, go, proceed', 1142 'to pass (as time), pass over, cross, go or be removed very far'. We should judge that both must be considered for the Brahui item.

2866 *durring*, *durrēnging* 'to dare, venture': **toṭu*. The meaning seems sufficiently close: 'to begin, undertake, attempt' (cf. especially Malto *toṛge* 'to be in readiness for action'). Brahui's initial *d-* has caused difficulty, since it was thought to be the only Brahui item in which *d-* represents **t-* (Emeneau 1962, p. 15, n. 19). However, it is now realized that Krishnamurti 1961, p. 374, s.v. *taggu*, had already connected Br. *daṛing* 'to get down, go down, descend, dismount' with 2597 **tāṛ-*, **taṛ-*V- (the Brahui was misprinted as *dar-*; again with correct recording in Krishnamurti 1958, p. 290), Since this is a good etymology in all respects if **t-* > Br. *d-* is accepted, and the inclusion of the Brahui items in *DED* 426, 439 was very tentative and phonologically unsatisfactory, it now seems tempting to accept these two instances of **t-* > Br. *d-*, even though this correspondence is another unsolved problem, and to include *daṛing*, etc. in 2597, as was done above in §8e. The suggestion, 1962, n. 19, that the following vowel **ō* might be the condition for **t-* > d- is, of course, untenable.

(c) One item has *r* with metathesis/aphaeresis (see §15):

S528 *trukking* 'to pluck off, pluck, strip': Kur. *tuṛ^{u}khnā*, *tuṛkha'ānā* 'to take the skin off, shell, strip'. Since in Kurukh *ṛ* represents only **ṭ*, the reconstruction is **tuṭ ... k/kk-*, with the second vowel of unknown quality.

(d) **ṭ*: Br. *ṛ*; six certain items, one uncertain item (listed at the end):

943 *khaṛ* 'ram': **kaṭ-* (cf. *kharās* in (a) above).

2324 *cuṛing*, *cuṛēnging* 'to get soaked': **coṭ/ṭṭ-* (Emeneau 1961, p. 383; id. 1962, §2.24, to which this item should be added).

2458 *taṛing* 'to cut, cut off, cut down, slaughter' : **taṭ-* (this should be deleted from 2562 and added to 2458, since inclusion in 2562 produces a unique instance of **ṛ*: Br. *ṛ*).

2712 *tuṛinging* 'to become undone (of stitches), clear (of clouds), separate (of milk)': **tuṭ-/*tuṇṭ-* (cf. especially Malto *turge* 'to break as a stick'); the alternative ascription to 2667 should be omitted, since the latter entry in general looks to **teṛ-*, in spite of some Tamil, Malayalam, and Koḍagu forms with *o*.

4042 *mūṛk* 'stopper, bung', *mūṛk tining* 'to stop up': **muṭ-* (? **mūṭ*); cf. Gondi (Tr.) *mūṛānā* 'to be blocked, of a bamboo or gun-barrel'.

S791 *miṛing* 'to drive away, drive (an area) for game': Toda *mi·ṛ-/me·ṛ-* 'to drive (buffaloes) on migration' (Bray's suggestion of connection with Indo-Aryan words meaning 'to wipe out' seems impossible).

379 *(h)aṛsing* 'to turn something back or round, change, recover', *haṛsēng-ing* 'to turn oneself back or round, return', etc.: **eṭ-* (cf. especially Maito *eṛare*); but there is nothing corresponding to the formative *s* in the other languages, and a query seems necessary.

(e) **ṭ*: Br. *ḍ*; one item:

2460 *taḍ*, *taḍḍe* 'power to resist': **taṭ-* (presumably **taṭay* for the second form). Why *ḍ/ḍḍ* rather than *ṛ* is quite unknown; Bray's citation of 'Jat. taḍḍ opposition, Si. taḍ^{a} 'support' complicates matters, but I have been unable to find these in any entry in Turner, *CDIAL*, and possibly they are borrowings from Brahui rather than the other way around.

13. The accompanying table of the developments stated in §§7-12 gives a clear picture of how much convergence of development Brahui shows for these four PDr. phonemes, in that all show *r* and *rr* and metathesis/aphaeresis and three show loss. On the basis of distribution of developments it seems fairly clear that independently of the other two **r* and **ṛ* fell together completely since they show no instances of *ṛ* and *ḍ*, and that **ṛ* and **ṭ* also fell together completely, showing instances of *ṛ* and *ḍ*; the latter pair differ only in that **ṛ* shows instances of loss and **ṭ* does not. The partial overlap of the developments of the latter pair (**ṛ* and **ṭ*) with those of the former pair (**r* and **ṛ*), i.e. the instances of *r* and *rr* for **ṛ* and **ṭ* (and in spite of the numerous queries, especially for **ṭ*, there are some firm examples), in all probability is the result of a secondary split in the developmental history of

*ṛ and *ṭ. So far, none of the statements of conditions which determine divergent developments yields any clue to the convergences.

PDr.	Brahui			
	r	*rr*	zero	*ṛ*	*ḍ*
*r	401 415 419 573a 702 2211 2526 3057 3106 3127 3435 3436 3613 3864 4311 ?1227 ?1670 ?1688 . . . . . . metathesis 2353 2653	1496 2213 2353 2980 3706 3865 ?4076	3128 noun plurals 479 3057 3106 r/n verbs 2526 2815 3127 4311		
*ṛ	610 777 1175 1329 3109 3610 3901 4538 ?4355a . . . . . . metathesis 2770	265 266 4536 4564 ?1538	noun plural 3901 r/n verbs 610 3914		
*ṛ	723 1348 4169 . . . . . . metathesis 427 2545 3440a	1511 1787 ?929	2597 3537 also with r 723 1348	2597 3423 3440b	3445
*ṭ	2865 ?935 ?943 ?952 (=*r* ?1227) . . . . . . metathesis S528	?929 ?2866		943 2324 2458 2712 4042 S791 ?379	2460

Table of correspondences

However, in nothing of what follows does it seem that any divergence of development is conditioned by the presence of *r, *ṛ, *ṛ, or *ṭ respectively in the PDr. form, with the exception of what has been pointed out above, viz. that only the retroflexes *ṛ and *ṭ (but not *r and *ṛ) develop as ṛ and ḍ, both of which are retroflexes if Bray's recorded retroflex nature of ṛ represents a more original state of things than the alveolar nature recorded by me (see §6 above).[10] There are, moreover, no instances of *ṭ being lost (§16). Otherwise, it is taken for granted that all the phonemes in question show the same development.

14. It may be noted that the developments of *ṭ, all of them voiced, and their convergence with the voiced developments of three other phonemes, two of which (*r, *ṛ) are with the greatest certainty to be judged voiced, look with a high degree of probability to a phonetic classing of pre-Brahui *ṭ as a voiced entity—a result which coincides neatly with the same judgment based on evidence from other languages. I would say the same for *ṛ also, but the whole question is so complicated, especially by the still inconclusive results of the historical investigations into the nature (voiced: voiceless) of Tamil -ṭ- and -ṟ-, that it is out of place to argue it here.

15. Metathesis/aphaeresis. The seven instances of this phenomenon include: two instances involving **r*, one involving **ṛ*, three involving **r̲*, ann one involving **ṭ*. Such a small body of data, contrasting with a number of seeming exceptions, cannot yield firm statements of development. However, some tentative statements should be made and discussed.

A tentative general statement is:

$$*(\mathrm{C})\breve{\mathrm{V}}^{1} \begin{Bmatrix} r \\ \underline{r} \\ \underline{r} \\ \underline{t} \end{Bmatrix} \breve{\mathrm{V}}^{2} \ldots > (\mathrm{C})r\mathrm{V} \ldots$$

Four of the vowel developments ($\mathrm{V}^1 \ldots \mathrm{V}^2 > \mathrm{V}$) are: **i . . . i>i* (3440a), **u . . . u>u* (2770 and possibly S528), **a . . . ay>i* (2545; probably **ay>*e*, as in *taḍḍe* §12e; for **e>i* in initial syllable, Emeneau 1962, §2.15), **i . . . u>ū* (427; long vowel before single consonant, whereas in the other examples there is short vowel before long consonant or two consonants). These five instances could be stated as showing aphaeresis of vowel of first syllable. However, the remaining two instances: **i/e . . . a>i* (2653), **o . . . a>a/u* (2353), must be explained as having metathesis of V^1 and the following consonant, with consequent assimilation and then contraction of V^1 and V^2: **i/e-a>*i/e-e>*e*, **o-a>*o-o>*o*,[11] and finally development of the short mid vowels by raising (**e>i*, **o>u*) or lowering (**o>a*) (for these final developments, see Emeneau 1962, chapter II; the occurrence of the doublet *tramp/trump* means that metathesis is historically prior to this development of the mid vowels). Metathesis could also be invoked for the developments **i . . . i>i*, **u . . . u>u*, and possibly even for the other two, though in the latter two the vowel developments would be of a different type from that of the remaining instances, i.e. the quality of the resultant Brahui vowels would be determined by the second vowel in the sequences **a . . . e* and **i . . . u* rather than by the first. The paucity of instances does not allow great exactitude of statement.

The initial C of the general statement must be defined. In four of the instances (2545, 2653, 2770, S528) it is **t-*; in one (2353) the etyma have variously *c-* and *t-*, an unsolved problem, which however allows the assumption of pre-Brahui **t-*.[12] One instance (3440a) has **p-*. In 427 there is no initial consonant. The absence of **k-* and **c-* is conspicuous. Bray's vocabulary (1934) contains no instances of *kr-* or *k̲hr-*, except for the former in two borrowings, *krōṛ* 'crore' from Indo-Aryan and *krōṛa* 'whip' from Iranian. There are numerous instances of *k-* and *k̲h-* derived as the two Brahui conditioned developments of **k-* (e.g. 1787 *k̲harring*: **koṛ-*; also 929, 935, 943, 1175, 1227, 1329, 1348, 1496), in some at least of which we might expect the metathesis/aphaeresis development but in which it is not seen (e.g. 1329 *kirēng*, *kirk*: **ki/eṛ-* according to the discussion of the next paragraph). Similarly *sr-* (which might be expected for **c . . . r/ṛ/r̲/ṭ*) is found in Bray only

in three borrowings from Iranian. There are several instances of *c-* and *k-* derived as the two Brahui conditioned developments of **c-* (2213, 2324, 2353), in which the expected metathesis/aphaeresis development is not seen (e.g. 2213 *kurring*, *kurrēnging* 'to shrink from, contract, keep back, withhold': **curuṅk-*; Emeneau 1961). However, there are instances with initial *p-* and *t-* in which there is no metathesis/aphaeresis which might be expected (2458, 2460, 2712, 2865, 2866, 3435, 3436, 3610, 3613); the most conspicuous example is 3435, 3436 *pirghing*, both derived from **piri* . . . (in 3435 cf. especially Ka. *higgu* for the derivative suffix following the second syllable).

This unsatisfactory statement suggests that we must look at what follows V^2 in the formula. It is clear enough that in all seven instances V^2 is followed by consonantal material, presumably derivative suffixes or parts of derivative suffixes (for the general theory of verbal derivative suffixes, see Krishnamurti 1961). Two of the instances have nasal+stop: 3440a *princing* (cf. Tulu *pur(e)ñc-*), 2353 *tru/amp* (none of the etyma has an exact correspondence for *-mp*, but Ta. *curuppu* 'flowing out, spring' has *-pp-*, which is related to **-mp*). Of the three instances of *-kk-*, that in 2653 *trikking* is related to *-kk-* in Ta. *tirakku* 'to shrivel, wrinkle'; S528 *trukking* is related to Kur. *tuṛkh-*, and the PDr. reconstruction is either **k* or **kk*; if the reconstruction of 2545 *trikk-(ing)* as **taṛay* . . . is correct, *-kk-* (following *ay*) is not represented in any of the etyma. In 427 *rūsing*, *-s-* undoubtedly represents *-c-* in Te. *īḍucu*, Kur. *īc-*, Malt. *ic-*, *íc-* and *-s-* in Konḍa *īṛis-*, but it is not yet certain whether we have PDr. **-c-* or **-cc-*; similarly 2770 *trujjing* has *-jj-* which is related to *-s-* in Kol. *turs-* and *-c-* in Kuwi (Su.) *cuc-*, but the reconstruction is still uncertain. This examination of the seven instances requires that the formula be revised as:

$$(C)\breve{V}^1\begin{Bmatrix} r \\ \underline{r} \\ \underline{r} \\ t \end{Bmatrix}\breve{V}^2C/CC\text{-},$$

with uncertainty as whether it is C or CC that is required at the end and as to how C/CC must be further defined (stop, single or double, or nasal+stop). If this is the correct statement, most of the seeming exceptions referred to in the preceding paragraph are not in fact exceptions, but are to be interpreted as representatives of reconstructions in which lack of C/CC is a condition that rules out metathesis/aphaeresis. As usual in Central and Northern Dravidian, the presumed extensive loss of PDr. second and third syllable material prevents certainty of reconstruction. However, we are still left with what look like a few exceptions, viz. 1329 *kirēng*, *kirk*, 2213 *kurring*, *kurrēnging*: **curuṅk-*, 3435, 3436 *pirgh-* (all quoted in the last paragraph, and there may be more instances not yet identified), in which consonantal material follows, or appears to follow, a reconstructed V^2, and there is no metathesis/

aphaeresis. An easy solution would be to say that, with all the uncertainties involved in reconstructions of Brahui forms, these are wrong reconstructions, and that there are in fact no clear exceptions; but this is possibly too easy. We are left with great uncertainty—it is too small a body of data to be pressed very far—and even the *prima facie* (and tempting) statement that metathesis/aphaeresis does not occur with intial **k-* or **c-* may be invalid if there is validity in what we seem to have found about a necessary condition that C/CC should follow V^2.

16. Zero, loss of phoneme. For the majority of the instances it seems probable that the factor conditioning loss of **r*, **ṛ*, and **ṛ̲* is an immediately following consonant, from the list *k*, *t/tt*, *p*, *f*, *m*, which represent probably PDr. **kk*, **tt*, **pp*, **v*, **m*.

The noun plural suffixes absolute *-k* and oblique *-t-* (*-tt-* after V̆), replace stem final *r*<**r* in three items:[13] 479 *(h)ōr*, *(h)ōk*, *(h)ōt-* (**ukir*), 3057 *dīr*, *dīk*, *dīt-* (**nīr*), 3106 *ditar*, *ditak*, *ditatt-* (**nett*V*r*), and replace stem final *r**<*ṛ̲* in one item 3901 *mār*, *māk*, *māt-* (: **maṛi*; presumably the reconstruction must be **māṛ̲*: **maṛ̲-i*, with *-i* a derivative suffix); the historical statement is that *r-k/t*<*k/t* by loss of *r*. Similarly, it has been suggested (§10d; Emeneau 1962, p. 39) that the 3sg. present-future forms *dēk*, *tēk*, *hatēk* may be derived from *r*-stems; it must be noted, however, that it is a most uncertain suggestion on which little can be built. On the other hand, the negative stems given in §§6d and 7d very probably follow the rule given at the beginning of this section (cf. Emeneau 1962, §3.28). Most certainly 2815 *tipp-*, *titt-* (verb *cā-ing*) derive from **ter-pp/tt-*. Likewise, we can be fairly certain that we have parallel phenomena in 3127 *dapp-*, *datt-* (*danning*)<**nēr-*, 2526 *tif-*, *tit-* (*tining*)<**teyr-*, 4311 *baf-*, *bat-* (*banning*)<**var-v/t-;* 610 *(h)upp-*, *(h)utt-* ((*h*)*uring*/(*h*)*unning*)< **uṛ̲-*, 3914 *maf-*, *mat-* (*manning*)<**maṛ̲-*. The one instance with *m* (*mm* after V̆) is 2597 *tamm-*, which has a NDr. cognate in Kur. *tamm-* (§8d); the derivation from **taṛ̲-um-* is perhaps doubtful.

One of the instances with **ṛ̲* probably lends some cogency to this hypothesis of development. This is the doublet 723 *hēfing*, *harfing* 'to raise, etc.' It can be explained as derived from **ēṛ̲-* and **eṛ̲u-*, the latter a shortened-vowel derivative of the former, and both having the *-f-* form of the causal suffix (Bray 1909, pp. 177-9, §§280ff.); **eṛ̲uv-* yields *(h)arf-* with loss of the derivative vowel, and Ta. *eṛuvu* is warrant for the form. The cluster *-rf-* is derived, then, from a sequence with vowel, while the sequence without vowel was simplified by loss of *r*. It is at least possible that the set 1348 *ki-/kī-/kē-* 'below, down', *kēragh* 'lower side, bottom, etc.' would admit of a similar explanation, but at the moment a detailed explanation is impossible.

Of the two items that remain, 3537 *pū* 'worm, maggot', derived from **puṛ̲u*, is without parallel. It may be that the sequence **-uṛ̲u* would regularly yield Br. *-ū*, but the various other PDr. instances of this sequence (e.g. 4095 **muṛ̲u* 'entire, etc.') have no Brahui etyma. Parallel developments in other

languages, e.g. Kota *pu·* 'worm' and 593 Nk. (Ch.) *ū* 'to comb' (**uṟu-*) are only analogies and do not prove anything for Brahui.

3128 *dē* 'sun, day, time': **nēr-*, though an excellent etymology proposed by Krishnamurti in 1968 and earlier communicated by him for *DEDS*, still requires an explanation of the loss of **r*. There is in fact no completely certain attestation of derivation from a form with the sequence **-ēr*, since 1670 *khēr* 'behind': **kēr-* is uncertain because of meaning (except in Brahui, the meaning is 'side'). Still one would expect instead of *dē* the form **dēr*, with the plural *dēk*, which is actually found. Several guesses are possible. The pair 'day' and 'night' (2997 *nan*) in the plural would yield *dēk . . . nank*, whence by analogy (*nank*: *dēk* = *nan*:?) a singular *dē*. Or, the pair 'sun' and 'moon' (*tūbē*, whatever its origin) might provide an analogical basis for a rhyming pair *dē ... tūbē*. But there can be no certainty.

17. The largest amount of divergence in the material concerns the split into *r* and *rr*, in which there are certainly involved **r*, **ṟ*, and **ṟ* (the two instances of *rr* for **ṯ* are dubious). A combination of morphological and phonological statements can be made to cover a large amount of the material, viz. in verb stems, firal **r*, **ṟ*, and **ṟ* are represented by *rr* after a short vowel and *r* after a long vowel, except that *r* occurs after a short vowel when the verb belongs to the *r/n* class (for which see Emeneau 1962, chapter III): after short vowel *rr*, 2980 *narr-ing* (**nar-*), 3865 *marr-ing* (**mar-*), 265 *harr-if-ing* (**aṛi-*), 266 *harr-ing* (**aṟ-*), 2353 *curr-ing* (**cor-*), 2213 *kurr-ing, kurr-ēng-ing* (**curuṅk-*), 4564 *birr-ing* (**veṟ-*), 1538 *ghurr-ing* (**gur-*), 929 *kharr-ing* (**kaṟ-*), 1787 *kharr-ing* (**koṟ-*);[14] after long vowel *r*, 2211 *kūr-ing* (**cūr-*), 573a *ūr-i/ēng-ing* (**ūr-*); *r/n* verbs, 610 *hur-ing* (**uṟ-*), 702 *ar-* (**er-*), 2526 *tir-*, *ha-tir-*, *ha-tar-* (**tar-*, **teyr-*), 3127 *dar-* (**ner-*), 3914 *mar-* (**maṟ-*), 4311 *bar-* (**var-*), and 1628 *kar-*, which is of Indo-Aryan origin. Exceptions to the more general part of the statement, i.e. the phonological part, go both ways, viz. *r* occurs after a short vowel in 3613 *pir-ing* (**per-*), 4169 *mir-ing* (**meṟ-*); *rr* occurs after a long vowel in 3706 *pōrr-ing* (**pōr-*; but it could be derived from **por-*V-), 1538 *gūrr-ing* (**gur-*; but the word is onomatopoeic, and Indo-Aryan borrowing even may be involved); one set of forms is uniquely exceptional in that both *r* and *rr* occur after a long vowel: 4355 *bārr-ing*, *bārr-ing-ing* 'to become dry, etc.', *bār-if-ing* 'to make dry' (but in the simplex verb outside of the infinitive *bārr-ing*, the base is *bār-*, Bray 1909, p. 117, §185), *bār-un* 'dry, etc.' (**vāṟ-*, cf. especially Koṇḍa *vāṛ-*, Kuwi [Su.] *vāy-*, [F.] *vwār-*). It is probable that the statement just made and discussed should be further qualified as applying only to intervocalic occurrences. None of the verbs listed, except the *r/n* verbs, yields any occurrences of *r/rr* except in intervocalic position. The *r/n* verbs yield forms with *r* final. However, Bray is obscure on the matter of final *rr* as opposed to final *r*, and I cannot reach a sure interpretation. E.g. in 1909, p. 61, he quotes *sharr* 'good' and *birr* 'wild' in contrast with *tar* 'shut', but in 1934, s.vv., he lists them as *shar, birr*, and *tar*; in his illustrative sentences all these words have *rr* when followed

by a suffix or word beginning with a vowel, but he makes the distinction of 1934 (given just above) before words beginning with a consonant, though on the other hand he never writes *rr* in *pir* 'rain'. Leaving this matter unsolved, it is to be noted that in forms apart from verb forms and forms derived from verbs, *rr* intervocalic is very uncommon; e.g. 401 *iraṭ* 'two' (**iraṭṭ-*), 419 *iris* 'a comb' (**ir-*), 3109 *darō* 'yesterday' (**neṛ-*), but 1496 *khurrukāv* 'a snore' (**kur-*), 4076 *marrām* 'shout, fame' (**mor-*); and 4536 *birr* 'wild' (**veṛ-*) should be noted again.

18. The conditions of other divergences can hardly be discussed intelligently, chiefly because of the paucity of material. Why, for example, should **ṭ* be represented by *r* in 2865 *tōring* (**toṭ-*) and by *ṛ* in 2324 *cuṛing* (**coṭ-*)? 2866 *durring* (**toṭ-*) is hardly more certain now that another instance of *d-* for **t-* has been found, since *rr* for **ṭ* still remains otherwise uncertain (see discussion in §12b). Again, why for **ṭ* does 2460 *taḍ/taḍḍe* (**taṭ-*, **taṭay*) show *ḍ/ḍḍ*, when *ṛ* is otherwise the commonest certain development (e.g. 943 *khaṛ*: **kaṭ-*, 2458 *taṛing*: **taṭ-*)?

3445 *piḍ* 'belly, stomach' is the only instance in which **ṛ* is represented by *ḍ* (rather than by *r* or *ṛ*), and a query was rightly written in *DED*. It is even possible that we might have expected metathesis/aphaeresis here since all the other languages except Gondi have evidence for reconstruction of a form with **k* (i.e. a voiced velar stop) at the end of a second syllable, i.e. **piṛVk-* (Te. *prēgu*, Nk. [Ch.] *pig(g)u* [<**piṛg-*; cf. Burrow 1968, pp. 62-3], Pa. *piṛuvu!* [pl.; with **k>v*, cf. Burrow and Bhattacharya 1953, pp. 5-6, §8], Ga. *puṛug*, pl. *puṛgul*). But, since this did not result, it may be that *ḍ* represents **ṛk*, with loss of vowel. There are no parallels, and there remains much uncertainty about the word.

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NOTES

1. For the Koḍagu transcription, see especially Emeneau 1967, n. 10. For Tamil and reconstructed Dravidian forms, the transcription is the normal one, which follows closely the graphemics of Tamil rather than the one which I prefer and which I used in the 1967 paper (see §2.1 there); i.e. **t*, **tt*, **nt* are used instead of **d*, **t*, **nd*, and similarly for other places of articulation; such statements as **r*+**k*>*k*, **r*+**g*>*gg* make better phonological sense than what is actually written here, viz. **r*+**kk*>*k*, **r*+**k*>*gg*.

2. Krishnamurti 1961, p. 381, no. 559, has rightly observed that the two stems **tāṛ-* and **tār-* are connected as derivatives with **-ṛ-* and **-r-* of a root **tā-*.

3. That *ḷ* represents **r* rather than **ḷ* is not *prima facie* clear from any of the etyma (Ta. *ō* [*-pp-*, *-tt-*], Ka. *ōḷ*/*ōv*/*ō*[*ōt-*]), but the Ka. and Koḍ. past stems *ōt-* are morphophonemically derivable from **ōr-tt-* rather than from **ōḷ-tt-*, since the latter type yields *ṭ*/*ṭṭ* rather than *t*/*tt* in such verbs as 1156 Ta. *kaḷ* (*kaṭṭ-*), Koḍ. *kaḷ-* (*kaṭ-*) 'to steal' and 1677 Ta. *kēḷ* (*kēṭṭ-*), Koḍ. *kë·ḷ-* (*kë·ṭ-*) 'to hear, ask'.

4. 1348 *kï·da* 'place below, down' is a noun derivative of *kï·ḷï*, but the suffix is not known to me.

5. *Krishnamurti* 1958, p. 264, gave an approximation to the statement ("assimilation of *ẓ* to the following suffix stop") on the basis of two words only (*kate* and *bodï*) and thought of them as loan words from Kannaḍa; *bodï* has been discussed at length in Emeneau 1970, §10. My own approach to a statement in Emeneau 1967, §2.35, is only an approximation.

6. For the latter, see n. 9.

7. This does not apply to *r* and *rr;* cf. §17.

8. One might suggest, with a query, relationship of this verb, whose meaning is 'to skip, prance, dance about', with *DED* 2578, e.g. Ta. *tāṇṭu* 'to dance, skip, jump, leap across, cross, surpass'; but the phonology seems desperately difficult. (A suggestion by K.S. Kamaleswaran of connection with 2830 now seems most appealing.)

9. Krishnamurti 1958, pp. 280, 291, wished to take 3437 Br. *pilhing* 'to squeeze', Malt. *pilqe* id., as belonging with 3440 **pir-*. However, the Brahui development as voiceless *l* would be unique, and it is probably better with *DED* to retain 3437 as a separate group with **l* or **ḷ*, although Burrow 1968, pp. 63, 69, found Krishnamurti's suggestion possible as regards the Malto item. [But for laterals as representative of **ṛ*, see now 'Brahui laterals from Proto-Dravidian **ṛ*', *JAOS* 100.311-2 (1980).]

10. This, of course, is what has determined the shift of Br. *taṛing* from *DED* 2562 (**taṛ-*) to 2458 (**taṭ-*), a correction to be made in *DED*.

11. For the parallel phenomena in Telugu and Kui, see the elaborate discussion, focused especially on Telugu, by Krishnamurti 1961, pp. 51-68.

12. Of the many items in Bray 1934 with *dr-*, none has a Dravidian etymology. Another

possible etymology has been found since the paper was written. The verb *dranzing*, *drãzing* 'to throw up in the air, winnow', not provided with an etymology by Bray, is identical semantically with the items in 2798 (**tūṛ-*). If a derivative suffix **-añc-* is assumed, the phonology works, with metathesis and **u. . .a* > **o* > *a*, if this is accepted as another instance of **t-* > *d-* to be added to the discussion in §12b. However, **-ñc-* > *-nz-* presents another problem when compared with *-nc-* in 3440a *princing*. Another possible connection for Br. *dranzing* is 2611 (**tāṛ-*), in which case **a. . .a* > *a*, by aphaeresis or metathesis; the meaning is acceptable, but not quite so close as in 2798. Still another example of **t* > Br. *d-* may possibly be seen in *dūn* 'well-shaft', if connection is assumed with 2786 (**tūmp-*) or, perhaps less likely semantically, 2795 (**tūṛ-*), especially (b). This last is based on a communication from K.S. Kamaleswaran.

13. These nouns listed are the only ones of Bray's list of this class (1909, pp. 40-1, §29) which have Dravidian etymologies.

14. Even 2866 *durr-ing* (**toṭ-*) would fit here if it were certain (cf. §12b). 2865 *tōr-ing* (**toṭ-*) should be noted.

CHAPTER XII

STUDIES IN DRAVIDIAN VERB STEM FORMATION*

(A) VOICE DERIVATION, with special attention to the intransitive suffix *-Vr-, which is productive in Kuṛux and Malto, and occurs as a relic elsewhere in Dravidian. (B) The plural action bases of Pengo-Kuwi, and their occurrence as relic forms elsewhere in Dravidian, with special reference to Gondi, Konḍa, and Kuṛux-Malto. (C) The motion bases of Pengo-Kuwi; their origin in the non-past suffix *-kk-/*-k-. (D) The personal object bases of Pengo-Kuwi; their origin in an auxiliary construction of *ta-/*tar- *to give to 1st or 2nd person.*

A. VOICE DERIVATION

Verb morphology in Dravidian has been investigated comparatively in recent years in a number of substantial publications. Most general in scope is P.S. Subrahmanyam's *Dravidian Verb Morphology* (1971), a reworking of his 1963 doctoral thesis. It treats in great detail all the outer layers of verb inflection—the tense-modal system, the personal suffixes of finite forms, and the non-finite formations. In about the same period a very detailed study of the same sections of the morphology had been made for Telugu by Bh. Krishnamurti in *Telugu Verbal Bases* (1961) and for some sections in South Dravidian and Brahui by myself (1962b, 1967).

Study of the inner structural layer of the verb, the roots and the stems derived therefrom, has also been carried forward. The derivation of stems concerned with voice, i.e. intransitive, transitive, causative, has been a most conspicuous matter, since formations of this type are in part at least productive in all the languages. From the beginning of comparative work in Dravidian (from Caldwell on) this has been a subject for investigation. Subrahmanyam (1971) devotes its first chapter ("Transitive and causative suffixes", 1-101) to the subject and yields very substantial results.

However, stem formation in general obviously needs study. A few examples of material make this clear enough. The Kui stems brōnḍ- *to smoulder, be capable of being fanned into flame, be fanned into flames* (past tense brōnḍit-; present participle brōṭki), brōḍ- *to be burned to ashes, be burned completely*; (*smoke*) *to be scattered* (past tense brōḍit-: present participle brōṭki), belong etymologically with the group *DED* 3705, in which the core of items shows a stem *por-i-, i.e. root *por- plus suffix *-i-, the meaning being *to be broiled,*

*JAOS, 95.1-24 (1975).

parched, blackened by fire, burnt by the sun. Both Kui items show the result of vowel metathesis and contraction, upon addition of a suffix. The first item shows a suffix *-aṇṭ-, the underlying form being *poraṇṭ-; this suffix is found nowhere else in this group of etyma. The suffix of brōḍ- is so far unidentified. Kui has no other pairs of stems of similar formation, nor so far has anything similar been identified in the total corpus of etymologies (though it may be there). It is not possible at this time, then, to correlate difference of suffix with difference of meaning.

Another example from the corpus, one of very many, is in *DED* 203, where Tamil alaṅku, alacu, alampu, alai all are given meanings *to shake or move* (*intr.*), *wander about*. Correspondences of one or more of these are found in all the SDr. languages (except Koḍagu) and in some of the CDr. languages. The variation between the suffixes, which are probably to be stated as *-ṅk-, *-c-, *-mp-, *-y-, is clear, although no difference of meaning is obvious; Tulu even has another suffixal form *-nt- in the verb stem land- *to lead a vagabond life*.

Already in 1953 Burrow and Bhattacharya (44) had written of the Parji verb: "The verbal root in Parji is with the rarest exceptions. . .monosyllabic. It may consist of the simple unextended root (:*aṛ-* 'to weep', *ver-* 'to go', etc.), or it may incorporate an old suffix which has long ceased to have any grammatical function (:*moṛk-* 'to salute respectfully', *kelc-* 'to dig with claws', etc.). Roots containing two consonants after the vowel are mainly of this type." Although this was correct for Parji and in its implications for all of Dravidian (moṛk- < *moṛ-akk-, *DED* 4208: kelc-<*kal-Vc-, *DED* 1108), it was undemonstrated and perhaps only impressionistic, even if it may have been suggested by earlier writing by L.V. Ramaswami Aiyar (e.g. 1931, 744-5) or by Burrow's early etymological work in Dravidian. Independent demonstration, however, came soon in Krishnamurti's *Telugu Verbal Bases* (1961), a work that was begun in 1950 at the suggestion and under the tutelage of Professor G.J. Somayaji, was completed in Berkeley in 1955-6 as a Ph.D. dissertation of the University of Pennsylvania, and was published in 1961 in the *University of California Publications in Linguistics* (vol. 24). The verbal bases or stems of Telugu were the material to be analysed morphophonemically, but the analysis was undertaken not merely synchronically, but with all the diachronic aid of Dravidian etymology. By comparison of all partial similarities in stems, it was determined that PDr. roots are of these shapes: (C)v̆-, (C)v̄-, (C)v̆C-, (C)v̄C-, and derivative suffix syllables are of shapes: -v̆, -v̆Cv̆, -v̆CCv̆, -Cv̆, -CCv̆. It was further discovered that when v̄C of the root is followed immediately by suffixal V, then in the root v̄—v̆. Ex. Ka. pōr, Te. pōr(u): Ta. porutu, Tu. pormbu- (<*porumpu) *to fight* (*DED* 3708). The Telugu analysis was carried out in great detail, that for the other languages less so, but it is already clear that in general this vocalic quantitative ablaut rule is common Dravidian in its scope and reconstructable for PDr. Besides the vocalic quantitative ablaut rule, Krishnamurti (81ff.) also

stated another morphophonemic rule, one of consonantal quantitative ablaut, to explain instances in which $(C^1)\check{V}C^2C^2$- has $C^2C^2>C^2$ when it is followed immediately by suffixal V: e.g. Te. pokku, pogulu, Ta. pukai *to grieve* (*DED* 3649).[1]

All this morphophonemic treatment by Krishnamurti goes very far indeed in the formal analysis of verb stem derivation. However, apart from the study of voice already mentioned, carried far by Krishnamurti's volume and by Subrahmanyam, the accompanying treatment of meanings is on the whole much less advanced.

However, Krishnamurti (146-7, § 2.38) made the observation that there is a high degree of correlation between derivative suffixes *-Vr/r̲-, *-Vl/ḷ- and intransitive meaning. These suffixes are irregularly distributed in SDr. and Telugu and are absent as derivative suffixes in NDr. and CDr. (apart from Telugu). But, as he noted, in Kuṛux a transitive verb is changed to passive or middle (i.e. reflexive) voice by adding a suffix -r-, e.g. ān- *to say*; ānr- *to be said*. It should be added that for Malto, the language most closely related to Kuṛux, an almost identical statement must be made (with -r- and -gr-: for both languages a more detailed statement would be welcome).[2] Krishnamurti's conclusion, based on the meaning and distribution, and apparently without taking into account the Kuṛux morphology, was that these suffixes were originally voice suffixes which were incorporated into some stems and lost as paradigmatic elements. He thought of restriction of this reconstruction to PSDr., apparently adding the Kuṛux evidence as an after-thought without reconsidering that it changes the reconstructive picture considerably. My own conclusion would be that the systematic occurrence in Kuṛux and Malto, one of the branches of NDr., and the sporadic occurrences in SDr. and Telugu, require reconstruction of the pertinent voice suffix for PDr., with retention of the system in Kuṛux-Malto, loss of the system but retention of some forms as enlarged stems in SDr. and Telugu, and complete loss both of the system and of all forms in CDr. apart from Telugu. This reconstruction says nothing for the *-Vl/ḷ suffixes of Telugu (and the SDr. languages); they must be left out at this point. Moreover, it is somewhat uncertain whether *r or *r̲ must be reconstructed for the suffix that we have identified. The details are in Krishnamurti (§ 2.38), where he noted that in the pertinent forms Telugu has only r and the SDr. languages show some fluctuation between *r and *r̲. In Kuṛux-Malto *r̲ seems to be regularly represented by s (Pfeiffer 1972, 153, §1.2.1.4.2), even though r sometimes occurs; in this instance *r would seem to be the more plausible reconstruction.[3] The evidence as a whole, then, points to a suffix *-Vr-. Moreover, it is at least possible that there is more evidence in *DED* and its supplements than Krishnamurti took into account. The reconstructive methodology that is involved seems sound and usable in other such problems, as, e.g. in that of the plural action stems in section B.

We may note that Krishnamurti (156-7, §§ 2.70-1) found another voice-suffix, of the shape *-Vm-, with transitive meaning.

But apart from this matter of voice derivation, little or nothing has so far emerged to give semantic value to phonologically analysable derivative suffixes. To further the matter is the object of the next section.

B. The Plural Action Bases in Pengo-Kuwi[4]

One of the CDr. languages, Kui, was long known from Winfield's excellent presentation and analysis (1928, 1929) to be characterized by a rather more complex system of verb stem derivation than was seen in the other languages of the family; Pengo is now known to be comparable (Burrow and Bhattacharya 1970). During the long process of incorporation of the Kui vocabulary material into *DED* and the later supplements to that volume, a process lasting from 1949 (or even earlier), down to the present, collectanea were accumulated bearing on etyma in the other languages that might be related somehow to the paradigmatic stem extensions of Kui. There resulted one collection of data that are related to one of the Kui derivatives.

This collection was motivated by Winfield's "plural action bases". He described in some detail (1928, 142-5) and exemplified in much more detail in the vocabulary (1929), a derivative paradigm for which he stated the meanings schematically: "One person doing a number of things. One person doing one thing many times. More than one person doing a number of things. More than one person doing one thing many times." Only five illustrative sentences were given, translated as follows: "I will take everything out of the basket"; "he shot many times over"; "we are breaking up posts and bamboos"; "they were dying from fever"; "I broke up a number of things". Winfield has not published his texts and other supporting material, nor has anyone since him made good this gap in the evidence. In consequence, though we have a good morphological account and a very large number of stems listed, the semantic side of the presentation leaves much to be desired; in particular, we are deprived of meanings for some very puzzling items that are listed, and we do not know what, if any, limitations there are on the occurrence of the formation, e.g. whether some verbs by their inherent meaning are debarred from the formation.

The closely related Kuwi language also has the formation. The two accounts by Schulze (1911, 1913) and Fitzgerald (1913) do not describe it, but some of the material in their accounts is explicable only in terms of Winfield's description. Burrow and Bhattacharya (1963, 268-9) identified many of the forms in Schulze and Fitzgerald and added some items from their own field-notes, including moreover the note that their informants explained such forms by the term bahu-vacanam *plural number*, a Sanskrit grammatical term, which presumably had penetrated to Kuwi speakers by contact with speakers of Oriya, the neighboring Indo-Aryan language. Israel (1972, 235-6) uses the term "intensive-frequentative bases" which Burrow and Bhattacharya used for Pengo.

When Burrow and Bhattacharya worked on Pengo, they found and described in detail in their 1970 publication, along with other parallels to Kui formations, a formation parallel to that for plural action (82-5, 105-6, and many items in the vocabulary). They used a new designation, "intensive-frequentative bases" or simply "intensive". The treatment of the meaning is terse (85): "This base has both a frequentative and an intensive sense." Illustrative sentences are translated: frequentative—"fishes ae swimming about (all over the place, in large numbers)"; "crumbs havre fallen (all over the floor)": intensive—"he is wiping (vigorously)"; "I breathed (hard), panted". On p. 91 a few more meanings are given: *to give* (*to various recipients*), *to jump* (*repeatedly*), *to pick up* (*many things*), *to cut* (*intensively*); again on p. 104, reflexives made from intensive bases: *to wipe oneself* (*thoroughly*), *to wash oneself* (*vigorously*), *to scratch oneself* (*vigorously*), *to pull away forcibly*. A few verbs occur only in this formation, viz. (the numbers are those of entries in the lists below) *to weep* (normally, though the simplex also occurs; 39), *to call* (96), *to bathe* (intr., tr.; 95), *to wear* (*waist cloth*) (93), *to give to drink* (ūṭpa-), *to learn* (japa-), *to distribute* (28), *to demolish* (virpa-), *to extinguish* (16), *to put to sleep* (hucpa-), *to wind round* (kuḍba-), (*fire*) *to crackle* (ḍība-), (*ground*) *to be split in fissures* (ṟazba-), *to whisper* (hēbga-), *to get well* (tīdba-), *to put on* (*jacket*) (rēba-). Finally, the periphrastic formation with reciprocal meaning is based on the "conjunctive participle" (apparently continuative) of the intensive plus the auxiliary verb ā- *to be* (e.g. *to be plurally seizing*, i.e. *to seize one another*).

It is at least possible to argue that the Pengo usage might just as well have been labelled "plural action"' like the Kui, since some of the examples (e.g. *to give* [*to various recipients*]) are "plural" in the same sense as in Kui. "Frequentative" is certainly "plural", and it is difficult to see how the "reciprocal" usage can be interpreted otherwise than as "plural". The intensive examples given may also (if *ad hoc*) be interpreted in the same way: "panting" surely involves plurality of hard breathing, and "wiping vigorously" does so almost as certainly. Most of the verbs that occur only in this formation are fairly obviously concerned with plural activity; e.g. *to distribute, to learn* by repetition aloud, *to bathe* by repeated pouring of water. But short of searching the Pengo texts for the occurrence of the forms, it is impossible to be sure of the nuances of meaning. However, enough has been said to make clear my conviction that "plural action" is the correct definition for Pengo as well as for Kui. I shall use this terminology throughout, and shall refer to a formation that lacks the simplex as "plurale tantum" (i.e. "plural only"), using the old term from Latin grammar.

Manḍa, the language most closely related to Pengo, is so far only known to me from the items recorded in *DEDS*. These include a few that are labelled "intensive", which must be interpreted like the Pengo items, as well as a few that are to be interpreted as plurale tantum.

The morphological details in Kui and Pengo are clearly related, even

though not identical in all details. In Kui, Winfield's analysis is very clear. The stem formative has five allomorphs: -k-, -pk-, -p-, -b-, -v-. These are distributed as follows:

1. Verbs of Winfield's 1st conjugation in the simplex paradigm have -i- immediately following the stem in the present-future and the past tenses; the present-future has the personal endings immediately following -i-, the past has the past suffix -t- after -i- and before the personal endings. These verbs have the plural action allomorph -k- immediately following the simplex stem. Before -k- a voiced stop (b, d, ḍ) becomes voiceless, and a nasal before a homorganic stop in the clusters mb, nd, nḍ is lost: similarly j, nj are replaced by s, and v is replaced by p. If a verb stem of this conjugation ends in k, g, or ng, it does not form a plural action stem at all (apparently there is no possibility of the occurrence of the cluster kk).[5] Exx. iṭ- *to place, put*: iṭk-; kis- *to pinch*: kisk-; kūr- *to fall down, lie down*: kūrk-; lānj- *to sprinkle. scatter*: lāsk-; poj- *to make a bundle of*: posk-; soṇḍ- *to chop up*: soṭk-; ṛab- *to tap*: ṛapk- (the only example of b, but ṛav- is also recorded); gev- *to run*: gepk- (the only example of v); ḍāmb- *to pound*: ḍāpk- (the only example of mb). In addition, in Winfield's 4th conjugation, which is further divisible into sub-classes, all however united by having a suffix -b- in one non-finite form, five verbs (two of them homophonous) have the plural action suffix -k-: one verb root ending in l, jel- *to pull*, has jelk-; four verb roots ending in g have this g replaced by s before -k-, viz., ig- *to throw down, let fall, drop*: isk-; peg- *to pick up, collect, peck up*: pesk-; ug- *to collide, butt*: usk-; ug- *to agree with, suit, fit*: usk-.

2. Six verbs of Winfield's 3rd conjugation, which he identifies by the suffix -v- of one non-finite form, have the plural action allomorph -pk- added to the root. Five of these have -pk- also in the "present participle" of the simplex: dī- *to fall, drop*: dīpk-; gi- *to do, make*: gipk-; kī- *to put on (clothes, etc.)*: kīpk-; sī- *to give, allow*: sīpk-; vī- *to throw, shoot*: vīpk-. The sixth verb, ā- *to be, become*, has plural action stem āpk-. A tempting analysis of these verbs of the 3rd conjugation is that they should be compared with the remainder of the verbs of that conjugation (see 5 below), which have -v- as the plural action allomorph and that -pk- should be regarded as representing a suffixal doubling (-v-k- > -pk-). As corroboration it is to be noted that one verb in (1) shows v replaced by p before the suffix -k-, viz. gev- *to run*: gepk-.

3. Winfield's 2nd conjugation consists of verb roots which have a suffix -p- in several non-finite forms. The plural action stem adds -p- to the root: if the root ends in k, the cluster -k-p- appears metathesized to pk.[6] Only two plural action forms of this type are guaranteed by quotation in Winfield, viz. ves- *to say, speak, tell*: vesp-; lek- *to break (tr.), snap off*: lepk- (with metathesis), but he says definitely that his rule is a general one for the conjugation. All transitives with suffix -p- (136-41) presumably follow the rule, yielding such plural action pairs as ep- *to arrive* (<e-): *epp- to cause to arrive* (<e-p-).

4. Winfield's 4th conjugation, which is unified by the suffix -b- found in one non-finite form, has the plural action allomorph -b- in all except the

five verbs listed at the end of (1) above. Winfield quotes only one verb: sal- *to go, depart*: salb-, but says definitely that the rule applies to all the verbs of the conjugation (with the specified exceptions).

5. Winfield's 3rd conjugation consists of verbs which he identifies by the suffix -v- which is added in one non-finite form. The verbs of this class, with the exception of those in (2) above, have -v- added to the root in the plural action stem. The only example quoted by Winfield is: sā- *to die*: sāv-, but again the rule is stated as of general application (with the specified exceptions).

All plural action stems are conjugated according to the 1st conjugation, one of the features of which is the suffix -i- as stated in (1) above, contrasting with the other conjugations, which do not have -i- either in the present-future or in the past.

In Pengo the plural action ("intensive") allomorphs are -ka-, -pa-, -ba. The consonants here are in some way related to the allomorphs in Kui (-k-, -p-, -b-, and probably -v- also). However, the relationship between the verb systems of Kui and Pengo is not yet worked out in detail, so that it is impossible so far to make a statement for Pengo that will parallel that given for Kui. The statement of distribution of the plural action allomorphs in the Pengo description is in part a matter of simple phonology as between -pa- and -ba-, i.e. in part the occurrence of the voiceless and the voiced stop depends respectively on the voicelessness or voicing of the stop or sibilant that ends the root; e.g. uh-~us- *to pound, beat in firmly*: uspa-; huz- *to roast*: huzba-. This is in part correlated with the intransitive-transitive pairs, many of which are characterized by ending in voiced stops vs. voiceless stops respectively (or their equivalents; examples are naḍ- *to be torn*: naṭ- *to tear*; lab- *to fit into* [*intr.*]: lap- *to insert*; vīz- *to be finished*: vīh- *to finish*; ḍanj- *to stick* [*intr.*]: ḍac- *to stick* [*tr.*]; ēnd- *to dance*: ēt- *to make to dance*), or by having a voiceless stop (p, t) added to form the transitive (e.g. rī- *to be torn*: rip- *to tear*; gūr- *to fall over*: grūt- *to fell*; ar- *to fall*: rat- *to cause to fall, drop*; aṛ- *to weep*: ṛat- *to cause to weep*; ven- *to hear*; vec- *to speak*). Although not many plural action forms have been recorded for intransitive members of such pairs, it is to be noted that in the few instances when both members of a pair have been provided with plural action forms, the intransitive member adds -ba- and the transitive member -pa-, viz. ḍanj-ba-: ḍac-pa-; ven-ba- (*to ask*): vec-pa- (*to speak*); ar-ba-: rat-pa; ṛa-ba-: ṛat-pa-; ī-ba- *to take a bath*: īt-pa *to bathe* (*tr.*) (both plurale tantum). For about a dozen more transitive members of pairs, plural action forms have been recorded; all these have -pa-, e.g. grūt-pa- (: grūt-), naṭ-pa- (: naṭ-), lap-pa- (: lap-), vīs-pa- (: vīh-), ḍripka- (: ḍrik-, with metathesis). This general use of -pa- with transitive members of pairs accords with the parallel Kui formation of transitives from intransitives by shift into Winfield's 2nd conjugation type (1928, 137-41), and formation of plural action stems from verbs of this conjugation by adding -p- to the root. In other words, Pengo and Kui in this class of verbs have the same formation

(with the same allomorph with p). Apart from this, however, in many instances the phonemic shape of the root does not determine whether the allomorph -pa- or -ba- occurs: e.g. ḍrik- *to break* (*tr.*): ḍripka- (<ḍrik-pa-) contrasted with ṛāk- *to sacrifice*: ṛābga- (<ṛāk-ba-); ēn-/en- *to beg, ask for*: ēnpa-/enpa- contrasted with ven- *to hear*: venba- *to ask*; tīr- *to sprinkle*: tīrpa- contrasted with ar- *to fall*: arba-. One general constraint is given for the occurrence of -ka-, viz. if a root makes the "motion base" (cf. the Kui "motion particle") with the allomorph -ka- (rather than -ga-), the plural action allomorph -ka- cannot appear with that root (i.e. there would be ambiguous homophony); it is stated in the description of the "motion base" (85, bottom of page) that of such roots "their intensive base is always made with the suffix -pa-." As between the occurrence of -ka- and -ba-, there is no rule: e.g. huz- *to roast*: huzba- contrasts with pez- *to pick up, lift*: peska-, ar- *to fall*: arba- with kēr- *to sing*: kērka-, ḍanj- *to stick* (*intr.*): ḍanjba- with mūnj- *to smell, sniff*: mūcka-. For many verbs no information is at hand on the formation or even on whether the verb has such a form. I usually find myself hesitant or even quite uncertain as to whether I can safely predict a form, if the grammar or vocabulary does not give it.

In spite of the difficulties in equating all details of the morphology in the Kui and Pengo plural action formations, it must be remarked that the verb structure in the two languages is identical, as the following statement of the order of formations shows:

1	2	3	4	5
root	intransitive / transitive	personal object base / plural action base / motion base	tense-mode	personal ending

(Position 4 also includes the negative formation.)

The motion base formation is discussed in section C, and the personal object base in section D. It may be noted that in position 3 the mutual exclusiveness of these two and the plural action formation is a matter of primary morphology: in Pengo plural action and the personal object inflection may be combined by a periphrastic formation consisting of the plural action base followed by the personal object formation of the auxiliary ā- *to be* (105-6, §219). In both the languages there is little evidence on the occurrence of formatives of position 3 after those of position 2, but for Kui there is an example of a plural action formation based on a transitive formation, viz. lepk- from the transitive stem lek- corresponding to the intransitive leng- (Winfield 1928, 143, 1.10), as well as the probability that Winfield's rule for deriving plural action stems from verbs of his 2nd conjugation will generate numerous plural action stems from transitive verbs. For Pengo the vocabulary gives

ḍanjba-: ḍacpa- derived from the intransitive-transitive pair ḍanj-: ḍac-, and the several other pairs given in the previous paragraph.

In spite of our being unable so far to compare the systems of Kui and Pengo satisfactorily, it is possible to compare a large number of etymologically related items. These are presented in list 1, with simplex and derived plural action forms for each language. Fifty etymologically related pairs are given from Pengo and Kui, with occasional supporting items from Manḍa and Kuwi; very occasionally Kui or Pengo may be lacking, their places being taken by Kuwi or Manḍa respectively. A query means that the record unfortunately does not list the form. A dash replacing the simplex half of a pair means that a plurale tantum form is all that the record contains. The great majority of the list, 38 entries, is subdivided into classes containing forms with the -k- suffix, forms with the -p- suffix, and forms with the -b- suffix. They are followed by 11 entries consisting of classes in which the suffixes differ: Pengo-Manḍa has -b- and Kui -v- (Kuwi -w-), Pengo -b- and Kui -p-k-, Pengo -p- and Kui -b-, Pengo -k- and Kui -p-, Pengo -k- and Kui -b-. Very little is available from Manḍa: it coincides with Pengo, except for entry 50, which is at the end of the list, in which Pengo and Kui have -p- but Manḍa has -k-, a decided anomaly so far as our present knowledge goes.

LIST 1. PLURAL ACTION ETYMA IN PENGO-KUWI

	Pengo	Manḍa	Kui	Kuwi
		k-		
1 (2139) *sweep*	hīp- : hīpka-		sēp- : sēpk-	
2=58 (1015) *cut, fell*	kat- : katka-		kat- : katk-	kat- : katk-
3=73 (2257) *see*	huṛ- : huṛka-		sūṛ- : sūṛk-	
4=59 (1271) *pinch*	kic- : kicka-		kis- : kisk-	
5=54 (851) *sew, weave*	ṛoc- : ṛocka-		os- : osk-	
6=51 (3623) *pick up*	pez- : peska-		pebg- : pesk-[7] (peg-b-)	
7 (S86) *butt, gore*	uz- : uska-		ubg- : usk- (ug-b-)	
8 (4243) *pull*	jel- : jelka-		jel-b- : jelk-	
9 (S450) *cut up*	honḍ- : hoṭka-		sonḍ- : soṭk-	
10 (S583) *kiss*	nonḍ- : noṭka-	? : nuṭka-	nonḍ- : ?	nonḍ-: noṭk-
			nonj- : nosk-	
11=65 (4000) *smell, sniff*	mūnj- : mūcka-		mūnj- : mūsk-	
12=66 (S737) *embrace*	pom- : popka-		pomb- : ?	pom- : pompk-
13=57 (757) *dance*		ēnd- : ētka- -p-	ēnd- : ētk-	
14=80 (1192) *wait*	kā- : kāpa-		kā-p- : kāp-	
15 (1025) *gulp, bite*	kap- : kappa-		kap-p- : kapp-	
16 (2002) *extinguish*	——— : hātpa-		sāp-p- : sāpp-	
17 (2349) *cause to enter, put in*	——— : hōṭpa-		sōṛ-p- : sōṛp-	

	Pengo		Manḍa		Kui		Kuwi	
18 (516) *give to drink, suckle*	———	: ūṭpa-			ūṭ-p-	: ūṭp-		
19 (3577) *yoke*	pūṭ-	: pūṭpa-			pūṛ/ṭ-p-	: pūṛ/ṭp-		
20 (2350) *run, flee*	hon-	: honpa-					hoṇ-	: honp-
21 (S139) *tie, bind*	gac-	: gacpa-	geh-	: gehpa-	gas-p-	: gasp-		
22 (2670) *feed*	c/tīc-	: c/tīcpa-			tīs-p-	: tīsp-		
23=90 (4025, 4096) *cover, bury; immerse*	muc-	: mucpa-			mus-p-	: musp-		
24 (4498) *speak, tell*	vec-	: vecpa-			ves-p-	: vesp-		
25 (S833) *fashion properly*	rōh-	: rōspa-			rōs-p-	: rōsp-		
26 (48) *seize*	ah-	: aspa-			ah-p-	: ahp-		
27 (S376) *beat, thrash*	hah-	: haspa-			sah-p-	: sahp-		
28 (3247) *share out*	———	: paspa-			pah-p-	: pahp-		
29 (3405) *leave*	pih-	: pispa-			pih-p-	: pihp-	pih-	: pisp-
30=74 (590) *anoint, smear (with cowdung)*	ṛūc-	: ṛūcpa-					ūh-	: ūsp-
31 (1551) *call*	kūk-	: kūpka- (kūk-pa-)			kūpk- (kūk-p-)	: kūpk-		
32=76 (S393) *shave*	hen-	: henpa-			sil-p-	: silp-		
33=88 (S512) *scrape, plane*	treh-	: trespa-			tah-p-	: tahp-		
34 (S290) *scoop up*			?	: grepa- -b-	grē-p-	: grēp-		
35=83 (4472) *hear, ask*	ven- *hear*	: venba- *ask*	ven- *hear*	: venba- *ask*	ven-b-	: venb-	wen-	: wenb-
36 (737) *say*	in-	: inba-			in-b-	: inb-	in-	: inb-
37 (2183) *roast*	huz-	: huzba-			subg- (sug-b-)	: subg-		
38 (641) *fly, swim*	ūm-	: ūmba- -b-				-v-	?	: ūmb-
39=81 (240) *weep*	aṛ-	: aṛba-			ṛī-v-	: ṛīv-[8]		
40 (909) *vomit*	kak-	: kabga- (kak-ba-)	kak-	: kabga-			?	: kakw-
41 (S846) *praise, sacrifice*	ṛāk-	: ṛābga- (ṛāk-ba-) -b-				-pk-(?<-v-k-)	lāk-	: lākw-
42 (282) *become, be*	ā-	: āba-			ā-v-	: āpk-		
43 (1628) *do*	ki-	: kiba-			gi-v-	: gipk-	kēp-	: kēpiw-
44=82 (2138) *give*	hī-	: hība- -p-			sī-v-	: sīpk- -b-		
45 (766) *put out hand to receive, beg*	ēn-	: ēnpa-			ēṇ-b- (P. dialect ēṇ-p-: ēṇp-)	: ēṇb-		
46 (1648) *shut door*	geh-	: gespa- -k-			gebg- (geg-b-)	: gebg- -p-		
47=84 (175) *cut crosswise*	raz-	: raska-			ras-p-	: rasp-	rat-	: ratp-

	Pengo		Manḍa	Kui		Kuwi
48 (S440) *be entangled*	hez-	: heska-		seh-p-	: sehp-	
		-k-			-b-	
49=91 (3136) *wash*	noz-	: noska-		nobg- (nog-b-)	: nobg-	
		-p-		-k-	-p-	
50 (498) *strike against, pound*	uh-	: uspa-	? : uhka-	uh-p-	: uhp-	

No other language of the family has a productive system of derivation of this kind. However, all the other languages have some stems that in form correspond to the plural action stems of Pengo-Kuwi (i.e. Pengo, Manḍa, Kui, Kuwi). Frequently, these derived stems are paired with a simplex or with some other derivative type, for which no differentiating meaning is yet known; frequently, however, the derived stem occurs in a language without any simplex beside it. The distribution is on the whole random, though two notable types of departure from random occurrence are seen.

1. The two languages that are most closely related to Pengo-Kuwi within the CDr. subgroup, viz. Konḍa and Gondi, have more pairs and plurale tantum forms than any other language outside the group, Gondi more than Konḍa.[9] This does not mean that these two languages have the derivation as a productive system. The Gondi vocabularies almost always when they show a pair give these items as synonymous, or, more usually, the two members of the pair are recorded for different dialects. For Konḍa, on the other hand, there are few pairs; the items are more often derivative without simplex, i.e. "plurale tantum".[10] That there are more Gondi examples with etymologies (25 pairs, 13 plurale tantum) than Konḍa (7 pairs, 13 plurale tantum) undoubtedly is due to the much greater mass of Gondi material, from numerous dialects, now in the record; the reverse would be expected considering that Konḍa is otherwise closer to Pengo-Kuwi than is Gondi.

2. The second type of departure from random distribution is seen in some verbs for which several languages show only a plurale tantum form combined with a semantic plurality. It was one of these verbs that initiated the enquiry, viz. 51 (3623) *peṟ- *to pick up*: *peṟVkk- *to pick up several objects*, which is represented by both forms in Kui (pebg-: pesk-) and now Pengo (pez-: peska-), but in Ta. Ma. To. Koḍ. Ka. by the plurale tantum with such meanings as *to pick up* (*as stones*), *pick up here and there*, *glean*, *pick up small objects*, *take up one by one*, *collect*. Now that more examples have been collected, semantic plurals can be more easily identified without raising the suspicion that the issue is being forced (e.g. 52[3404], 53[439], 54[851], 55[652], 84[175]), and it is possible to bring in material in which the derivative is identified only by form, without insisting on what could only be *ad hoc* semantic connection (e.g. 56[2866]).

Once such forms had been identified outside Pengo-Kuwi on the basis of forms in the Pengo-Kuwi systems of derivation, it was possible to assume that

formally parallel material in the other languages could be identified in terms of the Pengo-Kuwi systems, even if no forms occurred for these verbs in Pengo-Kuwi.

The material is presented in lists 2, 3 and 4. In list 2 there are pairs in Pengo-Kuwi (one or more of the languages) and elsewhere there are corresponding pairs and/or plurale tantum forms. To these are added five entries in which Pengo-Kuwi has plurale tantum forms, to which there are parallels elsewhere.[11] In the other two lists, there are no pairs in the record for Pengo-Kuwi (Pengo, at least, may well have derivatives that have not been recorded). In list 3 some other languages have pairs and there are also some plurale tantum forms, and in list 4 plurale tantum forms have been identified, but no pairs. List 5 contains additional material from Kuṛux and Malto, plurale tantum items for which there are no corresponding formations in the other languages.

LIST 2. PAIRS (SIMPLEX AND PLURAL ACTION DERIVATIVES) IN PENGO-KUWI, PAIRS OR PLURALE TANTUM ELSEWHERE

*-kk-

51 = 6 (3623) *to pick up, clean, weed*—*peṟ-: Pe. pez- : peska-, Kui peg-b- : pesk-, Go. perr- : pehk-, Pa. ped- (*to pick up, pick flowers, choose*): petk- (*to pick up, glean*), Ga. piy-: piyk-, Kuṛ. pes-: pesg-; pl(urale) tant(um), Ta. Ma. peṟukku, To. peṟk-, Koḍ- porïk-, Ka. herku, hekku, Kol. petk-; simplex, Tu. pejj-, Nk. pett-, Konḍa peṟ-, Manḍ. piy-, Kuwi per-, Malt. peh-.

52 (3404) *to squeeze, knead*—*pīc(c)-, *pic-V- : Pe. pīc- : pīcka-, Ta. picai: picakku, Ka. hisi: pisuku, Tu. pīs-: pisk-, Pa. pīc-: pīk-, Ga. pīc-: piskolp- (?); pl. tant. Ko. pick-, Te. pisuku, Go. pisk-, Kuṛ. picka'-; simplex, Manḍ. pīc-, Kui Kuwi pīc-.

53 (439) *to put down, swallow*—*iṟ-: Kui ig-b-: isk-, Kuwi ir-; isk-; pl. tant. Ta. Ma. iṟakku, To. iṟk-, Ko. erk-, Koḍ. ërak-; simplex, Konḍa iṟ-; (the simplex and *-kk- forms are all transitive, and it is probable that intransitive forms with *-ṅk- are back formations from the *-kk- forms).

54 = 5 (851) *to sew, embroider, weave*—*oṟ-, *oṟ-Vc-: Pe. ṛoc-: ṛocka-, Kui os-: osk-, Go. vaḍ-: vaṛk-; pl. tant. Ta. oṟukku, To. wïṛk-, Ko. oṛk-; simplex, Nk. (Ch.) oc-/os-, Manḍ. ṛuc-, Kuṛ. ōj-/ojj-, Malt. ōj-.

55 (652) *to scratch, weed, card* (*cotton*)—*ec(c)-: Pe. ec-: ecka-; pl. tant. Ta. ekku, Ma. ekku, To. ök-, Ko. ek-, Ka. ekku, Tu. ekk-, Te. ēku, Pa. ēk-; simplex, Go. eh-. This etymology was examined by Krishnamurti (1963, 557-8, fn. 4) in connection with his theory about Ta. k (āytam); the Kui etymon that he quotes there has been corrected in *DEDS* to ēspa (ēst-) *to unravel*, and might have been entered here as Kui ēs-p-: ēsp-, which unfortunately has -p- rather than -k- as in Pengo, but may be parallel to 84 (175) below; my treatment does not agree with Krishnamurti's, but might be compatible with that of Zvelebil (1970, 161-2).

56 (2866) *to begin*—*tōṇṭ-, *toṭ-V-: Kui ṭōṇḍ-: ṭōṭk-, Ta. toṭu: to/uṭakku; pl. tant. Ka. toḍaku, Malt. toṛg-. Krishnamurti (1961, 393) reconstructs: *toṇṭ/*toṭṭ-> *toṭ-V-, thus accounting for Te. toṭṭu; if my theory of derivation is correct, forms like Ta. to/uṭaṅku, Te. toḍāgu are back formations from the *-kk- forms, even though there is no question of intransitive-transitive here as there is in 53 (439) above.

57=13 (757, 684, 687) *to dance*—*ēnt-, *ent-V-, *et-V-: Manḍ ēnd-: ētka-, Kui ēnd-: ētk-, Pa. ēnd-: enk- (*to play*), Ga. ēnd-: endk- (*to play*); pl. tant., To. öθk- (*to jump*), Ko. edk- ([*Todas*] *to dance, jump high*); simplex, Kol. Nk. Nk. (Ch.) Go. Konḍa Pe. Kuwi ēnd-. The Kota characterization of Toda dancing as jumping (plurally) gave the Todas a verb to jump: their own word for their dancing is in *DED* 312 (o·ṣf-<*ār- *to shout*), derived from the vocal and poetic accompaniment of the dance.

58=2 (1015) *to cut, fell*—*katt-: Pe. kat-: katka-, Kui kat-: katk-, Kuwi kat-: katk-, Konḍa kat-: katki- (*to cut down trees in a forest*); pl. tant. Kol. katk-, Nk. (Ch.) katk-; simplex, Pa. katt-, Ga. kat-, Go. katt-, Manḍ. kat-.

59=4 (1271) *to pinch, pluck*—*kicc-: Pe. kic-: kicka-, Kui kis-: kisk-, Pa. kicc- (*to pluck strings of instrument*): kīk- (<*kick-; *to pinch*), Ga. kicc-: kisk-, Go. kicc-: kisk-; pl. tant. Br. kishk-; simplex, Te. giccu, Nk. (Ch.) kis-/kicc-, Konḍa kis-, Kuwi kicc-, Kuṛ. kicc-/kiss-, Malt. kis-.

60 (258) *to sprinkle, bale out*—*aḷ-, *aḷ-añc-: Kui lānj-: lāsk-; pl. tant., Te. aluku, Kol. alk-, Nk. aḷk-, Pa. alk-; with other suffix Kuwi ṛanj-. Cf. 85 (3140).

61 (3262) *to search, grope*—*par- (with various suffixes): Kuwi par- (*to search*): pṛāk- (*to grope*; Fitzgerald's writing for *prāk-), Go. par(r)-: park-; pl. tant., Te. pākul-āḍu,[12] Pe. prek-, Konḍa paṟbi- (?); other languages have other suffixes (*-at-, *-aṇṭ-, *-amp-, *-añc-).

62 (3428) *to fart*—*pitt-/*pītt-: Kui pīt-: pītk-, Go. pitt-: pihk-, pīt-: pīhk-; simplex, Te. pittu, Konḍa Pe. Manḍ. Kuṛ. Malt. pīt-.

63 (4355) *to dry up, wither*—*vaṟṟ-, *vaṟ-V- (with various suffixes): Kui vas-: vask-, Te. varuṭu: vakku; simplex and derivatives with various suffixes in all other languages except Nk. and Nk. (Ch.).

64 (4479) *to throw, fan, jerk*—*vīc-/*viñc-, *vic-ir/ṟ-, etc. : Kui vīnj-: vīsk-, Go. vinj-: vīsk-; other languages simplex or other suffixes.

65=11 (4000) *to smell, sniff*—*mūñc- (and other forms): Pe. mūnj-: mūcka-, Kui mūnj-: mūsk-, Pa. mūñ-: mūñk-; pl. tant., Go. mŭsk-; simplex, Manḍ. mūnj-, Kuwi- mūnj-; other languages other simplex and derived forms.

66=12 (S737) *to embrace*—*pomp-: Pe. pom-: popka-, Kui pomb-: (?) popk-, Kuwi pom-: pompk-; pl. tant., Malt. pamg-; simplex, Konḍa pom-, Manḍ. pam-.

67 (3120) *to breathe, pant*—*nēñc-: Pe. nēnj-: nēcka-, Manḍ. nēnj-: nēcka-, Go. nēj-: nēsk-; simplex, Pa. nēñ(j)-, Ga. nēnj-, Konḍa nēnz-, Kui nēnj-, Kuwi nēnj-.

68 (920) *to bite, gnaw*—*kacc-: Kui kas-: kask-, Kuwi kacc-: kask-, Go. kacc-: kask-; simplex in other languages, e.g. Ta. kaccu.

69 (66) *to heat, set fire to*—*aṭṭ-, *aṭ-V-: Kui aṭ-: aṭk-; pl. tant., Konḍa aṭk-; other languages simplex or with suffix.

70 (375) *to put*—*iṭ-: Kui iṭ-: iṭk-, Konda iṟ-: iṭki- (*to insert flowers behind the ear, in braid, etc.*); other languages simplex.

71 (3169) *to chip off, peel*—*vay-(ñ)c-(?): Kui vānj-: vāsk-; pl. tant., Kuṛ. Malt. basg-: simplex, Tu. bai-p-.

72 (2547) *to dig, scratch*—*tāṟ-: Kui tāṟ-: tāṛk-, Go. tāṟ-: tāṛk-; simplex, Konḍa tāṟ-, and with other suffix Te. travvu, etc.

73=3 (2257) *to see, think*—*(c)ūṟ-: Pe. huṛ-: huṛka-, Kui sūṟ-: sūṛk-, Ta. cūṟ- (*to consider*)/ūṟ- (*to think*): ūṛk- (*to meditate*); simplex, Te. cūcu (cūḍ-), Pa. cūṛ-, Ga. Go. Konḍa sūṛ-, Manḍ. huṛ-.

*-pp-

74=30 (590) *to anoint, smear with cowdung*—*ūṟ-, *uṟVc-: Pe. ṛūc-: ṛūcpa-, Kuwi ūh-: ūsp-, Konḍa ūs-: ūspa-; simplex or with other suffix, Ma. uṟi-, Ka. ūḍu, Go. ŭs- (not in *Voc.*).

75 (221) *to plait, weave*—*all-: Kui al-p-: alp-, Konḍa al-: alpa-; simplex in all the other languages, e.g. Ta. allu.

76=32 (S393) *to shave*—*ciṇ/ḷ-; Pe. hen-: henpa-, Kui sil-p-: silp-; pl. tant., Konḍa sinpa-; simplex, Kuwi hiṇ-.

77 (312) *to call, shout, howl*—*ār-, *ar-V-: Kui ār-p-: ārp-, Kuwi ār-: ārp-; pl. tant., Konḍa ārpa-; other languages simplex or other suffix, e.g. Ta. ār, araṟṟu.

78 (775) *to separate, sift, winnow*—*āṟ-, *ēṟ(V)c-, (?) *eṟVc->*ṟēc-: Kui ēs-p-: ēsp-, Kuwi ērs-: ērsp-; pl. tant., Kuwi ēhp-, Konḍa nēspa-; simplex, Te. ēṟu, Kol. (SR) ers- (i.e. probably ērs-), Pe. jēc-, Konḍa ṟēs-.

79 (3751) *to wear*—*pōr-, *por-V-: Kui por-p-: porp-; pl. tant., Konḍa porpa-; simplex or with other suffix, Ta. Ma. pōr-, Koḍ. poraḍ-, Pe. por-, Manḍ. pur-, Kuwi por-.

80=14 (1192) *to wait, watch*—*kā-: Pe. kā-: kāpa-, Kui kā-p-: kāp-; pl. tant., Kuṛ. xāp-, Malt. qāp-; simplex or other derivative in the other languages.

-b-, -v-, -pk-

81=39 (240) *to weep*—*aṟ- (with various suffixes; see fn. 8): Pe. aṛ-: aṛba-, Kui ṛī-v-: ṛīv-; pl. tant., Konḍa aṛba-; simplex or other derivatives in the other languages.

82=44 (2138) *to give*—*cī-: Pe. hī-: hība-, Kui sī-v-: sīpk-, Konḍa sī-: sība- (*to distribute, share*); simplex from *cī- or *ī- in the other languages.

83 (4472) *to hear, ask*—*vin/*ven-: Pe. Mand. Konḍa[13] ven- (*to hear*): venba- (*to ask*), Kui ven-b- (*to hear, ask*): venba-, Kuwi wen- (*to hear, ask*): wenb-; the other languages have in general simplex forms, e.g. Te. vinu, Kol.

vin-, Br. bin-, Pa. Ga. ven-, Kuṛ. Malt. men-, or with a suffix, To. pint-, Ko. vent-, or, as in Ta. Ma. vinavu-, a suffix -av-, which might possibly be the equivalent of the plural action suffix -b- of Pengo-Kuwi and Konḍa. Apart from Pengo-Manḍa and Konḍa, the meaning combination *to hear, ask* of Kui-Kuwi is found also in Ta. Kuṛ. Malto; *to hear* is that of Te. Kol. Nk. Nk. (Ch.) Pa. Ga. Go. Br., and *to ask* of Ma. To. Ko.

*-pp-: *-kk-

84=47 (175) *to cut, cut across, harvest*—*ar-i-, *ar-Vc-: Pe. raz-: raska-, Kui ras-p-: rasp-, Kuwi rat-: ratp- (? suffix), Ta. ari-: arakku (the latter is given as local with a reference also to Vināyakapurāṇam; but it may be old); pl. tant., To. ark-, Kol. Nk. Nk. (Ch.) aṛk-; otherwise Ma. Ka. aṛi-.

85 (3140) *to sprinkle, bale out*—*(n)oḷ-, *oḷ-Vc/ñc-: Kui nol-p-: nolp-, Go. locc-: l/rosk-, Ta. noḷ: noḷku; simplex or other suffix, Te. nollu, Kuwi noṇ-, Kuṛ. noll-, Malt. lol-, Konḍa lo- (with metathesis), Pa. olc-, Pe. ṛonj-, Konḍa lonz-.[14] Cf. 60 (258).

86 (1740) *to hoe, peck, chop, mince*—*kott-: Kui kos-p-: kosp-, Kuwi kot-: kotp-, Kuṛ. xot-: kotg-; pl. tant., To. kwïθk-, Malt. kothk-; other languages have the simplex, e.g. Ta. kottu.

87 (3363) *to spread out*—*pāc-: Kui pās-p-: pāsp-; simplex, Ka. pāsu, Pe. Manḍ. Kuwi pāh-, Ta. pāvu, To. po't-, Ko. pa't-; Ma. pāku-, pākku-, of which the latter might be plural action with *-kk-?

88=33 (S512) *to scrape, plane*—*taṛ-, *taṛ-Vc-: Pe. treh-: (?) trespa-, Kui tah-p-: tahp-, Go. tarc-: tarsk-; otherwise, Konḍa taR-, Mand. teh-, Kuwi tah-.

89 (S559) *to cut, sever*—*naṭṭ-: Pe. naṭ-: naṭpa-; pl. tant., Go. naṭk-.

90=23 (4025) *to cover, bury*—*muc(c)-: Pe. muc-: mucpa-, Kui mus-p-: musp-, Kuṛ. mucc-: musg-, Malt. muc-: musg-; other languages simplex or related forms.

-b-: *-kk-

91=49 (3136) *to wash*—*nōṭ-, *noṭ-V-: Pe. no/uz-: no/uska-, Kui nobg-(nog-b-): nobg-, Konḍa noṛ-: noṛba-; pl. tant., Ta. nuṭakku; other languages have simplex, e.g. Pa. noḍ-, Kol. oḍ-, Go. norr-, Manḍ nuy-, Kuṛ. nōṛ-(Pfeiffer).

At this point five entries may be added in which the Pengo-Kuwi languages have not pairs, but plurale tantum forms, to which there are parallels in other languages (Gondi, Konḍa, Malto), though most of the other languages show simplex forms.

*-kk-

92 (3344) *to dislike*—*pāy/c-, *pay-V-: pl. tant., Kui pāsk-, Go. pāsk-; otherwise Ta. payir-.

*-pp-

93 (502) *to put on* (*waistcloth*)—*uṭu-: pl. tant., Pe. uspa-, Manḍ. uhpa-, Konḍa uRpa-; simplex Ta. Ma. uṭu-, Ka. uḍu, Go. uṛs-.

94 (S82) *to wash* (*esp. face*)—*ūr-, *ur-V-: pl. tant., Kuwi rūp-, Konḍa ūrpa-; simplex Ga. ur-p-, Go. ūr-, ur-, Pe. ur-.

-b-

95 (3054) *to bathe, take a bath*—*(n)ī-, *(n)īnt- (*to swim*; see Krishnamurti 1961, 294, no. 90): pl. tant., Pe. ība-, Konḍa iyba-; otherwise such forms as Ta. nīntu, Ka. īsu. The causative in Pengo is also pl. tant., ītpa-.

-b-: -*kk-

96 (S²36A) *to shout, cry, weep*—*cīr-, *cir-V-: pl. tant., Pe. hīrba- (*to call*), Konḍa sīrba- (*to cry, weep*), Malt. cirq- (*to shout*). P.S. Subrahmanyam (private communication) would relate these to 2169 *cīṟ- *to hiss, make noise in anger*; if so, *cīṟ- rather than *cīr- for S²36A.

List 3. pairs (simplex and plural action derivatives) or plurale tantum forms, elsewhere than in Pengo-Kuwi

*-kk- (-p- also in 97)

97 (3089) *to pulverize, grind* (*grain*), *thrash*—*nū/ōṟ-, *nu/oṟ-V-: Ta. nūṟu: nuṟukku, Te. nūṟu: nuṟupu, Go. nōr-: nōhk-; pl. tant., Ma. nuṟukku (nūṟu- is intransitive), Ka. nuṟuku, Kol. norp-, Kuwi nōrp-; simplex forms are, e.g. Konḍa nūṟ-, Pe. nūz-, Manḍ. nūy-, and instances of other suffixes are Tu. nuri-, etc; the intransitive-transitive pairs with *-ṅk-: *-kk- may be of the kind seen in 53 (439) above.

98 (1295, 1624) *to split, pare off, mince, dig up*—*kett-, *ket-V-; Ta. cettu, citar: cetukku, Ka. kettu: kedaku, Malt. kithr-: kithk-; the remaining forms are simplex.

99 (1294) *to be scattered, spill, drizzle*—*kit-: Te. cedaru: ciduku; pl. tant., Kuṛ. kidg-; many of the remaining forms are of the type *kitar/ṟ-, e.g. Ta. citar, citaṟu, Ka. kedaṟ, Tu. kedar-.

100 (2865) *to touch, hold, grasp*—*toṭṭ-, *toṭ-V-: Ta. toṭu: to/uṭakku, Ka. to/uḍu: tuḍuku, Te. toṭṭu: toḍuku, Kuṛ. toṛs-: toṛsg- (Pfeiffer: with derivative suffix -Vc-); simplex forms, e.g. Ma. toṭu-, To. twaḍ-, Ko. toṛv-, Koḍ. toḍ-, Tu. toṭṭ-, Pa. ṭoḍ-, Br. tōr- (tōn-, tō-), or with other derivative suffixes, e.g. Ta. toṭar, Te. toḍaru.

101 (3641) *to pile up, load*—*pēṟ-, *peṟ-V-: Ma. pēṟ-: Ta. piṟakku, Te. pēr(u)cu: peṟuku: simplex, Koḍ. po·r-, Ka. pēṟu, Tu. pēr-, Konḍa peṟ-, Kuwi pĕ̄rh-.

102 (4078) *to break in pieces, kill*—*mūr-, *mur-V-: Ta. muri-: murukku, Kuṛ. murc- (*to twist and break*): murk- (*to cut by hacking, cut in small pieces*); pl. tant., Kol. Nk. murk-, Malt. murk-, (?) Kui mruk-p-; otherwise simplex,

e.g. Ma. mūr-, Tu. mūr-, or with other derivative suffixes, e.g. Ta. muri, To. müry-, Ko. mury-; intransitive-transitive pairs in *-ṅk-: *-kk- as in 97 above.

103 (1582) *to nod in sleepiness, doze*—*kūr-: Te. kūru: kūr(u)ku; pl. tant., Pa. kūrk-, Go. kūrk-, Kuṛ. kūg-, Malt. kūg-; simplex, Tu. kūr-, (?; in 1587) Konḍa gūr-, Kuwi kūrňk-.

104 (2365) *to groan, sound*—*ña/er-, *nar-, *ner-: Ka. naral-: naraku, Tu. nar(a)l-, nerl-: nar(a)k-, Malt. nir-: nirq-; pl. tant., Koḍ. nerak-; other derivatives, Ta. ñ/naral, Kuṛ. narya'-; Ma. ñ/naraṅṅu- looks like a back formation from plural action *-kk-.

105 (1717, 1718) *to strike, tap, peck, butt*—*koṭṭ-, *koṭ-V-: Ka. kuḍi: kuḍ/ṭuku, Pa. koṭṭ-: koḍk-, Go. koṭṭ-: kohk-; pl. tant., To. kwïṭk-, Ko. koṭk-, Nk. koṛk-; simplex, e.g. Ta. Ma. koṭṭu-, koṭu-.

106 (3513) *to extract, take off (clothes)*—*pucc-: Pa. pucc-: puyk-, Ga. pucc-: pusk-, Malt. puc-: pucg- (?; extracted from pucgre *to become loose*, intransitive with suffix -r-); simplex, e.g. Te. puccu, Kol. pus-.

107 (1798) *to bite, gnaw*—*koṟ-: Koḍ. kori-: kurïk-; pl. tant., Ka. ko/uṟuku, Te. koṟuku, Kol. Nk. Pa. kork-, Go. kork-, Konḍa koRk-; otherwise, Ta. Ma. koṟi, Tu. kojal-.

108 (3974) *to jump, leap*—*miṭṭ-, *miṭ-V-: Te. miṭṭu, miḍi-: mi/eḍuku; otherwise Ka. miḍi, Kol. miṭ-, Nk. miṭṭ-, Go. mirr-.

109 (3976) *to move, wander, search for*—*miṭṭ-, *miṭ-V-: Go. miḍḍ-, miṛh-: mirahk- (*Voc.* 2846); pl. tant., Ka. Te. miḍuku; simplex, Te. miṭṭ-āḍu.

110 (495) *to spit*—*ūc-: Go. ucc-: usk-; simplex, Te. ūyu, Ko. Nk. Nk. (Ch.) ūs-, Pa. ucc-.

111 (1927) *to chew*—*capp-, *cav-V-: *caval-, *calav-: Go. jalū-, alv-: alk-; Pa. cavl-, calv-: other languages, e.g. Ta. cappu, cavai, Ka. avuḍu, Nk. savs-.

112 (2740) *to sneeze*—*tum-, *tump-: Go. tuh-: tuhk-; other languages simplex, e.g. Ta. tummu, tumpu.

113 (2832) *to be hot*—*teṟ-: Go. ter(r)-: teṛk-; other languages simplex, e.g. Ta. teṟu, Pa. ted-, ṭeḍ-, Konda teṟ-.

114 (3549) (*hair*) *to become gray*—*puḷ-Vc-: Go. piṛc-: piṛsk-; other languages simplex, Kol. puls-, Nk. puḷs-. Pa. pulc-.

115 (3443) *to be slippery, slip*—*piṟ-, *piṟ-Vc-; Go. biṛs-: biṛsk-; other languages, Ta. Ma. piṟai-, Kol. pirs-, Pa. biṛj-.

116 (4447) *to trample, thresh*—* viṟ-, *viṟ-Vc-: Go. viss-: vihk-; Pa. virc-, Pe. vih-, Kui vih-p-, Kuwi vih-, viss-.

117 (S7) *to cut, cut up*—*acc-: Go. acc-: ask-: otherwise, Malt. asy-.

118 (S543) *to uproot, pluck*—*teṟ-: Go. te/arr-: tahk-; otherwise, Konḍa teṟ-.

119 (3636) *to defecate*—*pēl/ḷ-: Go. pēl-: pēlk-; other languages, Ta. pēl, pēḷ, Ka. pēl.

120 (2343) *to itch*—*coṟ-: Go. coh-: cohk-; other languages, e.g. Ta. coṟi.

121 (1817) *to rub, pound*—only NDr.: Br. (two dialects) xōsh-: xōshk-;[14a] Kuṛ. xõs-, Malt. qōs-.

List 4. plurale tantum, elsewhere than in Pengo-Kuwi

122 (3001) *to cut, mince,* (Malt.) *scratch*—*naṟ-: pl. tant., Ta. Ma. naṟukku-, Te. naṟa/uku, narku, Go. nark-, naṛk-, Konḍa naRk-, Malt. nark-; no simplex. Cf. 266 *to cut, cut off,* (Te.) *scratch* *aṟ-: all simplex or other derivative, except Te. ṟakku; intransitive and transitive originally.

123 (3064) *to swallow, gulp down* (to be associated with 3141 id.)—*noḷ/ṇ-, *nuḷ/ṇ-: pl. tant., Kuṛ. nunx-, Malt. nung-; with assimilation of nasal to velar, Ta. nuṅku, noṅku, Ko. nuŋg-, To. nug-, Ka. nuṅgu, Tu. niṅg-; (3141) pl. tant., Kuṛ. nulx-; otherwise, Ta. ṇoḷ, Ma. nuṇayu-, Ka. noṇe, Te. noilu, Go. r/lōp-.

124 (4512) *to search*—*vet-: pl. tant., Ka. bedaku, Te. vedaku, (?) Go. mehk-; simplex, Kuṛ. bedd-, Malt. bed-.

125 (3492) *to handle, grope, snatch*—*puṭ-, *puṭ-Vc-: pl. tant., Ka. puḍuku, Te. puḍ/ṇuku, Kol. puḍk-, Nk. puṛk-, Go. pursk-; simplex, Kuwi brū-c-.

126 (2634) *to strain, make violent efforts* (*as in childbirth or in defecation*)—*tiṇ-Vkk-: pl. tant., Ka. tiṇu/a/iku, Te. tinuku, (?) Konḍa dek-, Kuṛ. (Grignard) tĩwkh-, (Hahn) tĩwx-, tinkh-, Malt. tinq-; other languages have other derivatives of *tiṇ- with meaning *to be crowded, closely packed*, e.g. Ta. tiṇar, tiṇi, Ka. tiṇi.

127 (S692) *to cut to pieces, pluck* (*flower, hair, fowl*)—*putt-, *put-V-: pl. tant., Nk. (Ch.) putuk-, Kuṛ. pudg-; simplex, Kol. Nk. put-, (Nk. (Ch.) put- is intransitive).

128 (2082) *to sprinkle, spray*—*cit-: pl. tant., Go hidk-, Malt. cithg-; cf. Ta. citar *raindrop*.

129 (4426) *to scatter*—*vit- (with various suffixes): pl. tant., Go. vidark-; other languages, Ta. vitir, Ma. vitaṟu, Ko. vid-, Ka. bidir, Te. viduru, vidulu, vidalincu, Konḍa vidli-.

130 (686) *to fan*—(?) *eṟ-: pl. tant., Go. ersk-, rēsk-; other languages Tu. eddy-, Malt. esw-, Konḍa rīnz-.

131 (427) *to drag*—*iṟ-, *iṟ-V-: pl. tant., Go. iṛk-; other languages, e.g. Ta. iṟu, To. i·ṣf-, Koḍ ï·ḷ-, Te. īḍ(u)cu.

132 (162) *to sweep*—*ay-: pl. tant., Kol. Nk. ayk-; simplex, Nk. (Ch.) Pa. Ga. ay-.

133 (4434) *to mix*—*vir- (with various suffixes): pl. tant., Ma. virakku-, viraku-, Kuṛ. birx-, Malt. birg-; other languages, e.g. Ta. virăvu, Ka berasu, Te. berayu, Go. rānj- (<*vrāñc-).

134 (2844) *to search for*—*tēṭ-, *teṭ-V-: pl. tant., To. törk-; simplex, Ta. Ma. tēṭu-, Koḍ të·ḍ-.

LIST 5. ADDITIONAL KUṚUX AND MALTO PLURALE TANTUM ITEMS WITH NO CORRESPONDING FORMS IN OTHER LANGUAGES

135 (3440) *to press, squeeze, wring out*—*piṟ-: pl. tant., Kuṛ. pīx-, Malt. pīq-; other languages with other suffixes, e.g. Ta. Ma. Ka. piṟi-, Te. piḍucu, Kui pṛih-p-, Br. princ-.

136 (2353) *to ooze, fall in drops of numbers*—*cōr-, *cor-V-: pl. tant., Kuṛ. curx-, Malt. curg- (relation of u to o not clear); other languages simplex or with other suffixes, e.g. Ta. Ma. cōr-, Ka. sōr-, Ta. Ma. cori-, cura-, Ka. suri. The plural action meaning is conspicuous in Kuṛux and Malto.

137 (837) *to make noise, cry, weep*—*ōl-, *ol-V-: pl. tant., Kuṛ. olx-, Malt. olg-; other languages simplex or with other suffixes, e.g. Ta. ōl, oli, ulampu.

138 (43) *to adhere, stick to, fit*—*ac-: pl. tant., Kuṛ. assg-, Malt. asg-; other languages, Konḍa as-, Kuwi ass-.

139 (2667) *to open* (*door*)—*teṟ-: pl. tant., Kuṛ. tisg-, Malt. tisg-; other languages or with other suffixes, e.g. Go. terr-, teṛ-, Ta. tiṟa, To. teṟ-.

140 (2013) *to leap, jump over*—*cāṭ/ṭṭ-: pl. tant., Kuṛ. cāṭx-, Malt. cāgṭ- (with metathesis); simplex, Ma. cāṭu-.

141 (3166) *to become viscous or thick*—*pac/t-: pl. tant., Kuṛ. padx-, Malt. pathg-; other languages with other suffixes, e.g. Ta. pacai, Go. paciht-.

142 (1085) *to make noise, jingle, cry out*—*kar- (with various suffixes): pl. tant., Kuṛ. xarx-, Malt. qarg-r-; other languages with other suffixes, e.g. Ta. karai, Ma. karaḷ-, Tu. karmb-, Go. karŋg-.

143 (3963) *to close the eyes when drowsy, wink*—*min-: pl. tant., Kuṛ. miŋkh-, Malt. minq-; with other suffix, Kol. minp-.

144 (S88) *to bore hole*(*s*), *sting*—*ūt-, *ut-V-: pl. tant., Kuṛ. utg-, Malt. uthk-; simplex, Ta. ūtu.

145 (2334) *to crawl* (*with successive movements*)—*cor-V-: pl. tant., Kuṛ. corg-, Malt. corg-r-, (?) Koḍ. ogg-.

146 (S²11) *to clean* (*by trimming, clearing away*)—*end-V-: pl. tant., Kuṛ endx-, Malt. eṉgd- (with metathesis).

147 (2822) *to tuck up* (*garment, as when sitting, wading, etc.*)—*tēl-, *tel-V-, (? *teṟ-): pl. tant., Kuṛ. telg-; simplex, Malt. tēl-, (?) Ma. teṟu-.

148 (1129) *to knock off* (*piece*[*s*])—*kav-; pl. tant., Kuṛ. xãwx-; with suffix -i-, To. köfy-, Ko. kavc- (Ta. kavi, To. köfy- intransitive).

149 (3297) *to slander, ridicule, abuse* (*by scolding*)—*paṟ-: pl. tant., Kuṛ. paṛg-, (?) To. pa·k-; other languages, e.g. Ta. Ma. paṟi-, Ko. paḷc-, Ka. paṟi, Koḍ. paḷi-, Te. prabbu.

The lists yield further information which should be summarized; tabular presentation would make some of the points very obvious, but unfortunately the tables are not easily printable.

The following table gives the number of pairs and plurale tantum forms found in each language apart from the Pengo-Kuwi group.

	pairs	plurale tantum
Tamil	9	6
Malayalam	—	7
(Ta. and Ma. together yield one pair, 101 [3641])		
Toda	—	9
Kota	—	6
Koḍagu	1	3
Kannaḍa	5	8
Tulu	2	1
Telugu	7	9
Kolami	—	9
Naikṛi	—	7
Naiki of Chanda	—	2
Parji	7	4
Gadba	5	—
Gondi	25	13
Konḍa	7	13
Kuṛux	5	10 (+15)
Malto	4	13 (+12)
Brahui	1	1

We have already remarked that the languages nearest to Pengo-Kuwi, viz. Gondi and Konḍa, have more of these forms than any other language outside the group. This is unequivocally true of Gondi both for each of the two categories and for the total (38). Of Konḍa it is true of the plurale tantum forms, but not quite as much so of the pairs; if one adds the two figures (20), it is true of the language as a whole. The totals for Telugu (16), Tamil (15), and Kannaḍa (13) are in the next highest group. It may be suspected that these totals are dependent on the large lexica that we have for these three literary languages, as compared with the meagre vocabularies that we have for, say, Kolami, Naikṛi, and Naiki of Chanda. But, as soon as this is said, it becomes obvious that the figures are not really comparable, and that any inferences that we draw are very impressionistic. The Tulu lexicon is rather large, and yet the figures are very nearly at the bottom, next to Naiki of Chanda, for which the vocabulary is very small indeed, and to Brahui, whose Dravidian vocabulary is very impoverished. The figures for Kuṛux (5 and 10) and Malto (4 and 13) are fairly high, that for Malto much higher than would be expected considering the fairly small size of the recorded vocabulary. To these, in fact, we add in list 5 further items found in these languages only, 15 for Kuṛux and 12 for Malto, which bring them up within reach of Gondi. In sum, then, North Dravidian offers roughly as much material as Central Dravidian, while South Dravidian seems significantly lower, especially since Tamil and Kannaḍa, with their large record, should be expected to yield proportionately larger figures. A search

in their lexica might yield further pertinent material, but it is not so far obviously there.

Tabulation would also make it very clear that in a number of entries the only language to show plural action derivative forms is Gondi, the form being paired with a simplex in nos. 110-20, and being plurale tantum in nos. 129-31. Again, Kuṛux and Malto are almost comparable. So far as I have discovered, no other language shows so much uniqueness in the entries, even though there are several scattering entries; e.g. in 121 (1817) Brahui has a unique pair, and in 134 (2844) Toda has a unique plurale tantum.

The coexistence of the velar and the labial suffixes is almost entirely a peculiarity of Pengo-Kuwi. These four languages have both types (for Manḍa insofar as we have any evidence at all). For the velar suffix there are in the other languages many etyma with corresponding suffixes. The labial suffixes, however, have with very few exceptions labial correspondences only in Konḍa, which it will be remembered is most nearly related of all the CDr. languages to Pengo-Kuwi (nearer than Gondi, for which no examples of the labial suffixes have been so far discovered). The Konḍa instances are in the *-pp- section of list 2 nos. 74-9, in the section with Pengo -b- nos. 81-3 (in no. 83 Konḍa has the same meaning distribution as Pengo and Manḍa), and in the section with -b-: *-kk- no. 91 (Konḍa has -b- agreeing with Kui but disagreeing with Pengo); moreover, in nos. 93-6 Konḍa has plurale tantum forms in *-pp- or -b- corresponding to similar forms in Pengo, Manḍa, or Kuwi. Konḍa also has the doubtful form paṟbi- in 61 (3262), with -b- corresponding (if it does) to *-kk- of other languages. The labial suffixes otherwise appear only in 80 (1192) pl. tant. Kuṛ. xāp-, Malt. qāp- alongside Pe. kāpa-, Kui kāp-, and in 83 (4472) Ta. Ma. vinavu- alongside Pe. Manḍ. Konḍa venba-, Kui venb-, Kuwi wenb- (if I am correct in thinking that the Ta. Ma. suffix corresponds to -b- of Pengo-Kuwi and Konḍa); it is possible that 133 (4434) Ta. viravu might also be listed here, though no other language shows a labial suffix.

In general there is no phonological uncertainty about the velar suffix. It is reconstructable as PDr. *-kk-, i.e. the voiceless velar stop. However, several Tamil etyma that have been interpreted here as having the suffix are: 73 (2257) ūṟk- *to meditate*: ūṟ- *to think*, cūṟ- *to consider*: Kui sūṛ- *to see*, pl. act. sūṛk-; 85 (3140) noḷ and noḷ-ku *to bale out*: Go. locc- and l/rosk- *id.*; 55 (652) pl. tant. ekku (otherwise transcribed eh̲ku) *to card cotton*, Ma. ekku-, Ka. ekku, Tu. ekk̄u-, Te. ēku: Pe. ec- *id.*, pl. act. ecka-. In the two former, Ta. -k- (not voiceless) must correspond in the derivative to PDr. *-kk- (voiceless), but without more parallels it is impossible to make a convincing statement of development. The last instance is puzzling: presumably Ta. -k̄k- (-h̲k-) is equivalent to Ta. -kk-, since SDr. in general and Telugu (also Pa. with a different meaning development) have *-kk-. The relationship with the Pengo etymon (also that of Kui with a different meaning development) is not yet

clear; possibly we should think of a PDr. *-c-Vkk-, which might yield, with loss of V, *-ck-> *-kk-, which is represented here by Ta -k̲k-.[15]

Much the most difficult problem presented by the phonology of the velar suffix is that of Kuṛux and Malto.

The items in lists 2, 3 and 4 are contained in the following entries (19 in all, 7 in both languages):[16]

51 (3623)	Kuṛ. pes-: pesg-	
52 (3404)	Kuṛ. picka'-	
56 (2866)		Malt. toṛg-
66 (S737)		Malt. pamg-
71 (3169)	Kuṛ. basg-	Malt. basg-
86 (1740)	Kuṛ. xot-: kotg-	Malt. kothk-
90 (4025)	Kuṛ. mucc-: musg-	Malt. muc-: musg-
96 (S²36A)		Malt. cirq-
98 (1295, 1624)		Malt. kithr-: kithk-
99 (1294)	Kuṛ. kidg-	
100 (2865)	Kuṛ. toṛs-: toṛsg-	
102 (4078)	Kuṛ. murc-: murk-	Malt. murk-
103 (1582)	Kuṛ. kūg-	Malt. kūg-
104 (2365)		Malt. nir-: nirq-
106 (3513)		Malt. puc-: pucg-
122 (3001)		Malt. nark-
123 (3063, 3141)	Kuṛ. nunx-, nulx-	Malt. nung-
128 (2082)		Malt. cithg-
133 (4434)	Kuṛ. birx-	Malt. birg-

List 5 contains additionally the following, all plurale tantum items in Kuṛux and Malto (15 in all, the last three in Kuṛux only):

135 (3440)	Kuṛ. pīx-	Malt. pīq-
136 (2353)	Kuṛ. curx-	Malt. curg-
137 (837)	Kuṛ. olx-	Malt. olg-
138 (43)	Kuṛ. assg-	Malt. asg-
139 (2667)	Kuṛ. tisg-	Malt. tisg-
140 (2013)	Kuṛ. cāṭx-	Malt. cāgṭ-
141 (3166)	Kuṛ. padx-	Malt. pathg-
142 (1085)	Kuṛ. xarx-	Malt. qarg-r-
143 (3963)	Kuṛ. miŋkh-	Malt. minq-
144 (S88)	Kuṛ. utg-	Malt. uthk-
145 (2334)	Kuṛ. corg-	Malt. corg-r-
146 (S²11)	Kuṛ. endx-	Malt. eŋgd-
147 (2822)	Kuṛ. telg-	
148 (1129)	Kuṛ. xãwx-	
149 (3297)	Kuṛ. paṛg-	

In these items Kuṛux has as suffix g, x, kh, and k, and Malto g, ġ, k, and q. All these represent PDr. *-kk-, i.e. in those instances in which the Kuṛ-Malt. derivative forms are not unique in the entry, and presumably in the others as well. Kuṛux and Malto both have g most commonly in the entries where *-kk- is certain, viz. as numbered in the lists above, Kuṛux 51 (this most conspicuously certain), 99, 100, 127, Malto 56, 66, 128, both languages 71 and 103. Otherwise, Kuṛux has x and Malto ġ in 133, and Malto has ġ in 106; Kuṛux has x or kh (depending on the authority used) and Malto q in 126; Kuṛux has g and Malto k in 86; both have k in 102; Malto has k in 98 and 122; Malto has q in 104. The correspondence that we find to be most common and, so to say, regular on the basis of the morphology, viz. *-kk-: g, does not agree with Pfeiffer's statement of phonetic correspondences for Kuṛux. For *-kk- (151, § III.1.2.1.1.3) he finds the regular correspondence to be k/kk and kh (following 1); he finds g in two of our verbs (72, nos. 439 and A439, our nos. 86 and 144), and gives a forced explanation for *kodk->kotg- involving an improbable "shifting of voice in the consonant cluster". On the other hand, he finds (150, § III.1.2.1.1.2) that g and x are the regular correspondence of *-k-, and, in fact, with the two exceptions just noted, he sets up *-k- in his PDr. reconstructions for the verbs that we are interested in, in spite of the forms in the other languages pointing to *-kk-; for our no. 126 (83, no. 527), in which the two authorities give x and kh, he sets up both *-k- and *-kk-. However, we cannot accept Pfeiffer's reconstruction of *-k- in these forms; either on the basis of the cognate forms in the other languages (with *-kk-), or on the basis of our theory of the morphology, *-k- is unacceptable. It follows that Pfeiffer's attempt (150-1) to find a phonological explanation for the split of *-k- into Kuṛux g and x is also unacceptable, since a number of his pieces of evidence actually should have *-kk- rather than *-k-.[17] I must leave unsolved the puzzling splits in the phonology of these forms in Kuṛux and Malto, but find the morphological analysis, as I have set forth the data, as convincing as that for Gondi or any other of the non-Pengo-Kuwi languages.[18]

The data presented pose the question of the historical relationship to be assumed. There seem to be only these alternatives: (1) that the languages of the CDr. subgroup Pengo-Kuwi present us in their well-structured systems with an innovation based on the comparatively few identifiable occurrences with plural action meaning in the other languages; or (2) that PDr. had a system of plural action derivation in the verb stems, that it was retained as such (with some changes of detail) in the subgroup Pengo-Kuwi, and that the other languages or subgroups independently lost the system as such, but retained relic forms, more in Gondi and Koṇḍa of CDr. (which are most closely related to Pengo-Kuwi) and in Kuṛux and Malto of NDr., but some in all the languages. The systematic complexity of the allomorphy in Pengo-Kuwi (even though the individual languages here have gone their own way to some extent in the details), with a meagre but still unmistakable representation of the complex allomorphic distribution in the etyma in the other langua-

ges, and the very irregular distribution of the items in the languages that do not have the productive system, combine to convince me that the second alternative is the only possible historical explanation. I.e. PDr. had a system of plural action verb stem derivation with a set of allomorphs including *-kk-, *-pp-, and *-p-/-v-; the distribution of these allomorphs is still a problem. This system appears as a retention in the closely related subgroup made up of Pengo-Manḍa and Kui-Kuwi. All the other languages lost the system but retained some of the derived stems, either paired with the basic simplex or some other derivative therefrom, or in isolation (plurale tantum). Sometimes even the derivative meaning was retained, especially when the basic meaning of the verb was inherently plural. It might be that better recording would show more such meanings than we now know.

Attention should be drawn to one phonological matter in a preliminary way. The two rules concerning quantitative ablaut of the root when derivation takes place (sketched in section A) are exemplified by numerous instances in the lists. The vocalic rule ($C\bar{V}C$-: $C\breve{V}C$-V) is seen, e.g., in 52 (3404) Tu. pīs-: pisk-, Pa. pīc-: pīk- (<*pic-Vkk-; Burrow and Bhattacharya 1953, 3), Ko. pick-, Te. pisuku, Go. pisk-; 97 (3089) Ta. nūṟu: nuṟukku, Te. nūṟu: nuṟupu, Kol. norp-; 101 (3641) Ma. pēṟ-: Ta. piṟakku, Te. pēr-(ucu): peṟuku; 134 (2844) Ta. Ma. tēṭ-, Koḍ. të·ḍ-: To. töṛk-; 144 (S88) Ta. ūtu : Malt. uthk-; 147 (2822) Malt. tēl-: Kuṛ. telg-; 131 (427) *īṟ-: Go. iṛk-; and 57 (757, 684, 687) Pa. ēnd-: enk-, Ga. ēnd-: endk-, To. öθk-, Ko. edk- (whether the rule for vocalic quantitative ablaut works back over an NP cluster of consonants is not yet clear, but this instance can hardly be ignored). The consonantal rule ($C^1\breve{V}C^2C^2$-: $C^1\breve{V}C^2$-V-), is seen, e.g. in 98 (1295, 1624) Ta. cettu : cetukku, Ka. kettu: kedaku, Malt. kithk-; 105 (1717, 1718) Pa. koṭṭ-: koḍk-, Go. koṭṭ-: kohk-, Ka. kuḍuku, Nk. koṛk-; 108 (3974) Te. miṭṭu: mi/eḍuku; 59 (1271) Pa. kicc-: kīk- (<*kic-Vkk-), Ga. kicc-: kisk-, Go. kicc-: kisk-, Br. kishk- (<*kic-Vkk-); 110 (495) Go. ucc-: usk-; 118 (S543) Go. tarr-: tahk-; 86 (1740) *kott-: To. kwïθk-, Malt. kothk-. There are many instances, however, in which the rules do not work, presumably because of paradigmatic levelling. Sometimes this is seen throughout the whole of a group of etyma, sometimes only in one or more languages in a group in which other languages show the rule working. Exx., vocalic: in 52 (3404) above Tu. Pa. Ko. etc. follow the rule, but not so Pe. pīc-: pīcka-; 97 (3089) above, Go. nōr-: nōhk- do not follow the rule; 57 (757, 684, 687) above, Manḍ. ēnd-: ētka-, Kui ēnd-: ētk- do not follow the rule; 72 (2547) Kui tāṛ-: tāṛk-, Go. tār-: tāṛk-, with no language following the rule; 103 (1582) Te. kūru: kūr(u)ku, Pa. Go. kūrk-, Kuṛ. Malt. kūg-, with no language following the rule; consonantal: in 105 (1717, 1718) above Pa. Go. Ka. Nk. follow the rule, but Ka. (also) kuṭuku, To. kwïṭk-, Ko. koṭk- do not; in 59 (1271) above Pa. Ga. Go. Br. follow the rule, but Pe. kic-: kicka-, Kui kis-: kisk- do not (levelling in opposite directions); in 86 (1740) above, To. Malt. follow the rule, but Kuwi kot-: kotp-, Kuṛ. xot-: kotg- do not; in 90 (4025) Kuṛ. mucc-: musg-, Malt. muc-: musg-

follow the rule, but Pe. muc-: mucpa-, Kui mus-p-: musp- do not (levelling in opposite directions as in 59 [1271] above); 58 (1015) Pe. kat-: katka-, Kui Kuwi kat-: katk-, Konḍa kat-: katki-, Kol. Nk. (Ch.) katk-, with no language following the rule. On casual inspection one can doubt whether any of the languages follows the rules in all instances. Koḍagu or Brahui may do so, but the material from these languages is too scanty to allow us to generalize; certainly the subgroup Pengo-Kuwi shows no consistency. However, definitive statement on all details is impossible until we are sure of the more complicated details of phonetic correspondence of the individual languages, e.g. in the matter of consonantal clusters in CDr. and NDr.

C. The Motion Base in Pengo-Kuwi

Three of the languages of the Pengo-Kuwi subgroup have the "motion base". No information is yet available for Manḍa, though Burrow has implied that it also has the formation (foreword to Krishnamurti 1969a, xvi). For Kuwi the descriptions so far are sketchy (Schulze 1911, 146-8; Burrow and Bhattacharya 1963, 267-8; Israel 1972, 234-5). The descriptions for Kui (Winfield 1928, 111-22, "motion particle"; Burrow and Bhattacharya 1961, 132) and Pengo (Burrow and Bhattacharya 1970, 85-7, "motion base") are full.

The place in the verb structure of the motion suffix has been stated in section B. The forms are (sketchily stated) as follows.

In Pengo the suffix is -ka-/-ga-. As in the case of the plural action suffix -pa-/-ba-, no general phonological rule can be given for the distribution of the two forms; a partial rule of that type has to be supplemented by listing. (Notably, but irrelevantly in this connection, if the motion suffix of a verb is -ka-, its plural action suffix cannot be -ka-, but must be -pa-.) A few irregularities include the formation from the plurale tantum form ība- *to bathe* of a motion base ībga-, and ika- *to arrive,* which is a motion base with no simplex, and which has a plural action derivative ipka- (<ik-pa-) (*DEDS* 693); both of these go against the rule of mutual exclusiveness of plural action and motion formations (see section B).

For Kui, Winfield gives rules in terms of his conjugation classes (see section B). The suffix in the 4th conjugation is -ga-, unless the verbal root ends in g, in which case the suffix is -ka- with -i- preceding, i.e. -i-ka-. In the 2nd conjugation the suffix is -ka, unless the root ends in k, in which case the suffix is -i-ka-; in the 3rd conjugation the suffix is -ka-; in the 1st conjugation it is -i-ka-. A few irregularities are stated: sūṛ- *to see* has both sūṛ-ika- and sē-ka- (which cannot be identified etymologically); ot- *to fetch a person* is usually conjugated with the motion suffix; etc.

Most of Kui 4th conjugation verbs with -ga- have corresponding to them Pengo verbs with -ga-; e.g. (36[737]) Kui in-b-: inga-, Pengo in-: -inga-; (3914) Kui man-b-: manga-, Pengo man-: manga-; (8 [4243]) Kui jel-b-: jelga-,

Pengo jel-: jelga-; and similarly other roots ending in n and ṇ (3563 pun-, 22 [2670] tin-, 35 [4472] ven-, 18 [516] uṇ-), as well as (3087) Kui nōl-b-: nōlga-, Pengo nōṇ-; nōṇga-; (17 [2349]) Kui sōl-b-: sōlga-, Pengo hōṇ-; hōṇga-; (4407) Kui vāl-b-: vālga-, Pengo vāṇ-: vāṇga-. Some other verbs, have corresponding suffixes in the two languages, e.g. (24 [4498]) Kui ves-p-: veska-, Pengo vec-: vecka-; but there are numerous exceptions, e.g. (44 [2138]) Kui sī-v-: sīka-, Pengo hī-: hīga-; (43 [1628]) Kui gi-v-: gika-, Pengo ki-: kiga-; and notably those cases in which the Kui verbs belong to the 1st conjugation (with -i-ka-), e.g. (2 [1015]) Kui kat-: katika-, Pengo kat-: kadga-; (13 [757]) Kui ēnd-: ēndika-, Pengo ēnd-: ēndga-. In other words, whatever the origin of the formation, the two languages have in part gone their own way. One deduction that can be made is that in Kui in the 1st conjugation the suffix -i- that appears in both simple tenses of the indicative (future-indefinite and past) is found also in the motion suffix; this -i- has made its way also into the 2nd and 4th conjugations when the root ends in a velar.

In addition, Kui has alternative forms. In the 2nd conjugation all roots that end in consonants, except k, have motion bases with -i-ka- as well as those with -ka- (e.g. ves-ka-, ves-ika-); i.e. the -i- suffix that has just been described is secondarily found here too. Finally, all instances of -ika- and of -ga- may be replaced by -isaka- except when the root ends in a vowel. E.g. in the 1st conjugation ot-ika- and ot-isaka- alternate, in the 2nd ves-ka-, ves-ika-, and ves-isaka-, or lek-ika- and lek-isaka-, in the 4th sōl-ga- and sōl-isaka-, or nog-ika- and nog-isaka-; but in the 3rd kō-v- has only kō-ka- (so all verbs of this conjugation since all its roots end in a vowel), and in the 4th trē-b- has only trē-ga-.

Winfield defines the meaning of this suffix as "motion 'going' which precedes the action of the verb to which the particle is attached": e.g. *to go and look*, *to go and bring*, *to go and give*, *to go and plow*. Sometimes the formation indicates the purpose of the going; e.g. *to go to look*, *to go to plow*. Burrow and Bhattacharya (1961) give for trē-b- *to wander, travel*, trē-ga- *to go for a walk*. The meanings in Pengo are of the same kind, and need no further exemplification.

No other language shows anything like this formation, except for the Konḍa irregular imperatives of ta- *to bring*, viz. sg. ta-ga, pl. ta-ga-ṭ (Krishnamurti 1969a, 290); as Burrow pointed out (foreword to this volume, xvi), these are parallel to the Kui and Pengo forms for this verb (viz. Kui takamu, takaṭu, Pengo taka, takaṭ).

The comparative-historical status of the motion base has been discussed for a long time. L.V. Ramaswami Aiyar knew the Kui formation and said of it (1929b, 7) that it is "derived from Dravidian *kal*, to go". He wrote (1929a, 122) that "the root *Kal*...(to go)" formed the present tenses of the Brahui verb hining *to go* (i.e. the paradigms based on kā-), and that it occurred in Kuṛux and in "Pombada, a dialect of Tulu"—this last I cannot identify.[19] Burrow and Bhattacharya (1961, 132) made the same suggestion: "This *-ka-*

is perhaps to be connected with the *kā-* 'to go' which appears in Kurukh *kānā* (alternating with *ker-*, *kāl-*), and in the present stem *kā-* of the Brahui verb *hining* 'to go'." The verb referred to is *DED* 1195; Malto also has kāl- *to go, come to* (with no past tense, very like the Brahui suppletion). This NDr. verb has itself been discussed variously. Its initial k- offers a problem, since before the vowels a and ā, PDr. *k- should be represented by Kuṛux and Brahui x, Malto q. Burrow's general treatment of initial *k- in NDr. (1943) failed to take account of these etyma. In my treatment (1961) of some obvious exceptions to the general correspondence, viz. those involving NDr. k-: SDr. and CDr. *c-, I found that for these NDr. verbs meaning *to go* one could point to possible etyma in the rest of Dravidian with initial *c-. We have, then, in attempting to find in the NDr. verbs meaning *to go* (kāl-, kā-, or the like) the origin of the motion suffix -ka-/-ga-, landed on the horns of dilemma. If my hypothetical etymology for the NDr. verbs is to be taken seriously,[20] there could have been no CDr *kā- or *ka- which could have yielded the suffix; it should have had *c- instead of *k-. On the other hand, if there had been a verb *kā- or *ka- extant at one time in CDr. to yield the suffix, it should have been represented in NDr. by forms with initial x-/q- and not with k-. This origin, then, by auxiliary use of a verb *to go* seems impossible.

My suggestion is that the motion suffix, a velar stop, originated in the PDr. non-past, i.e. present-future, or even specifically future, suffix *-kk-/*-k-. This suffix is treated in detail by Subrahmanyam (1971, 307-13, with the data given for the various languages in the sections preceding). The languages which are identified by Subrahmanyam as having this suffix are Tamil-Malayalam, Kota, Toda, Koḍagu, Kannaḍa, Gondi, the Kolami-Parji subgroup, and probably Brahui. The gaps are notable in the distribution of what must have been a PDr. feature. It has been lost in NDr., except for slight relics in Brahui. It is found in general in SDr., but Tulu has no traces of it. In CDr. it has been lost in Telugu, but is retained to some extent in the Kolami-Parji subgroup. In the large CDr. subgroup Gondi to Kuwi, Gondi retains it, but the remaining languages have no simple non-past forms with the suffix. Instead, i.e. complementarily, Pengo-Kuwi have the motion bases, and Konḍa has (as Burrow says, foreword to Krishnamurti 1969, xvi) a relic of the motion base formation, as if it had shared fully in the Pengo-Kuwi construction and then lost it except for the isolated relic. In other words, Pengo-Kuwi and Konḍa shared in an innovational structural change based on the PDr. non-past formation with *-kk-/*-k-.

Details of the formal relations must be left at this point. However, a few words must be said about the innovation in meaning. For an English speaker, it is irresistible to state the change as *I shall see>I am going to see>I shall go and see*, with spread thence into the past tense also (*I went to see, I went and saw*), and this I take to be the development. Perhaps this is supported by the usage reported for Pengo (86-7, § 178), in which the verbs hal- *to go* and vā- *to come* follow the infinitive of the motion base, e.g. prey[1] korgedeŋ[2] hacan[3].

I went[3] *to buy*[2] *rice*[3], even[1] ṛūgedeŋ[2] halen.[3] *let him*[1] *go*[3] *to plow*[2], or follow the uninflected form of the motion base, e.g. tinga[1] vātaŋ[2]. *I came*[2] *to eat*[1], taka[1] vānaŋ[2]. *I will come*[2] *to bring*[1]. The structure is: to do so-and-so in the future, one came or went.

The only point which I have so far not attempted to deal with is the Kui alternative forms with -isaka-, i.e. -i-sa-ka. The inserted -sa- suggests the verb *to go* seen in *DED* 2286 *ce/al-. This in Kui is the 4th conjugation verb sal-b-, which idiosyncratically has an allomorph sa- in various sub-paradigms, including the present-future and various non-finite "participles" (other roots ending in l and those ending in n and ṇ have similar short allomorphs, but in fewer forms than does sal-b-). A motion base for this verb is improbable, on grounds of redundancy of meaning: if it were to occur, Winfield's rule should give sal-ga- and the corresponding verb in Pengo, hal-, would have halga-, though Burrow and Bhattacharya (symptomatically) did not record it. However, I would suggest that in Kui a redundancy was created by insertion of sal-'s short allomorph sa-, as if sa-ka- were a motion base following a stem of non-finite form with suffix -i. This is the reverse of the construction found in Pengo (preceding paragraph) in which the simplex verb hal- follows a motion base non-finite form. Such reversal, however, is not impossible, and I put forth the suggestion in the hope that it is not too far wrong.

D. The Personal Object Base in Pengo-Kuwi

The Pengo-Kuwi subgroup has as one of its characteristics a verb base formation that is used when the verb has an object, direct or indirect, referring to 1st or 2nd person, the simplex base being used when there is no object at all or an object referring to 3rd person. So far we have good accounts for Kui and Pengo, a somewhat less good one for Kuwi, and for Manḍa only the statement (Burrow, foreword to Krishnamurti 1969a, xvi) that it too has the formation.

A felicitous name for the formation has not yet been found. Winfield in his Kui grammar (1928, 101-11) referred to the suffixal material as "transition particles". In dealing with Kuwi, Schulze (1911, 126-30) misunderstood the formation and called it "self-reflexive". Fitzgerald (1913, 40 *et passim*) gave reasonably good definition and extensive paradigms, and called the formation "direct" (as opposed to the simplex "general" form). Burrow and Bhattacharya in dealing with Kui (1961, 131) wrote of "a special type of verbal inflection which is used when the first or second persons form the direct or indirect object of the verb, and occasionally when some more general reference to them is implied." When they dealt with Kuwi (1963, 252-60), they gave relevant paradigms, and adopted, without further explanation, but clearly from their statement about Kui just quoted, the term "special", opposing it to "general" for the simplex paradigm. In the Pengo grammar (1970, 76-82) they used the term "special base". This term, useful as it may

be because of its simplicity, is not very revealing. I would suggest, and will use here, the term "personal object bases", considering that the 1st and 2nd persons have personal pronoun and number reference and are "personal" *par excellence*, as opposed to the 3rd person, which in most of Dravidian has gender reference as well as number. Israel (1972, 232-4) used a term of the same type, viz., "third person exclusive bases".

The formation in Kui is as follows. In the simplex paradigm the structure is: root+suffix for tense, or for negative and tense+personal endings; in Winfield's 1st conjugation -i- is inserted between root and tense suffixes in the affirmative (non-negative) paradigm. The personal object base adds to the root the suffix -a- in the affiirmative and -ara- in the negative; this base takes the place of the root in the formula just given. This simplest statement suffices for Winfield's 1st and 3rd conjugations. In the 2nd conjugation, the suffix is -ta- and -tara-. In the 4th, the suffix is basically -da- and -dara-; when the root ends in l or n, there is morphophonemic replacement as follows; l (PDr. *l) +d>j; l (PDr. *ḷ)+d>ḍ; n (PDr. *n)+d>nj; n (PDr. *ṇ)+d>nḍ (i.e. ṇḍ). The verb ā *to become, be* has suffix -ja- and -jara-. The negative root siḍ- has -ara-. Instead of -ara- there is often -aja-, but Winfield's statements and silences do not make it quite clear whether these alternate in all the conjugation types. The suffix as found in the negative, -ara-/-aja-, etc., is not confined to the negative. Alternatively with -a-, etc., it is found in the 1st and 2nd singular of the future affirmative, and in the imperative affirmative; Winfield gives this usage only for the 1st conjugation, and it is uncertain whether he means to deny it for the other conjugations. *Vice versa,* Winfield very sketchily refers to some verbs of the 2nd and 4th conjugations (including man- in auxiliary use), as having alternatively negative forms without -ara-, i.e. with only -t- and -j- as the suffix. Burrow and Bhattacharya (1961, 131-2) found that -ara- occurred also in the past affirmative in the dialect that they studied.

Kuwi, in spite of gaps in the material and some differences in detail, seems very like Kui in having suffixes with and without the dental consonant. It is unlike Kui in having in the negative not -ara-, but -a- (-ta-, etc.) as in the affirmative. Israel's account (1972, 232-4) does not go further than to confirm the earlier accounts.

Pengo has in all verbs a suffix with a dental consonant; after a palatal consonant the dental is assimilated to the palatal (-c-c-, -j-j-, -nj-j>-nj-). The dental consonant is either t or d. The suffix is -t- or -d- after a root ending in a vowel, -ta- or -da- after a root ending in a consonant. A few verbs ending in n add -j-, rather than -ja-, and are consequently irregular in this respect (e.g. in- *to say*: inj-, compared with jinj- *to fan*; jinja-): hal- *to go* has hanj-. These bases in -t-, -d-, -ta-, -da- go through the complete paradigm of the simplex verb; i.e. in the negative there is no parallel to the Kui longer forms with -ara-, Pengo in this being similar to Kuwi.

No simple rules can be given for the incidence of t and d in these Pengo

forms, anymore than there could be for p and b in the plural action bases or for k and g in the motion bases. In general a verb has the same type of stops (all voiceless or all voiced) throughout these bases, though this too is complicated by the presence of k, as well as p and b, in the plural action formation. There occur such contrasts as kā-t- *to watch*: vā-d- *to come*; vāk- *to pour*, vāk-ta-: nāk- *to lick*, nāg-da-; nil-ta- *to stand*: jel-da- *to pull*; vār-ta- *to pour*: kēr-da- *to sing*; gac- *to bind*, gacca-: pac- *to scratch*, pajja-.

In comparing Kui and Pengo, it is found that in general Pengo formations with -t- and -ta- (including t assimilated to c) have corresponding Kui forms of the 2nd conjugation, i.e. with -ta-; e.g. Pengo kā-t- *to watch*: Kui kā-ta-; Pengo ta-t- *to bring*: Kui ta-ta-; Pengo nil-ta- *to stand*: Kui nil-ta-; Pengo nik-ta- *to raise*: Kui nik-ta-; Pengo as-ta- *to seize*: Kui ah-ta-; Pengo vec-ca- *to speak*: Kui ves-ta-. The Kui 4th conjugation verbs with d and the morphophonemically derived instances of j have Pengo correspondences with d and j; e.g. Pengo pez-da- *to pick up*: Kui peg-da-; Pengo in-j- *to say*: Kui in-ja; Pengo jel-da- to pull: Kui (jel-), jeja-. But, corresponding to Kui's 1st and 3rd conjugations, which have suffixes without dentals (-a-/-ara-), Pengo has usually suffixes with d; e.g. Pengo vā-d- *to come*: Kui vā-a-; Pengo hī-d- *to give*: Kui sī-a-; Pengo huṛ-da- *to see*: Kur sūṛ-a-; Pengo pom-da- *to embrace*: Kui pomb-a-; Pengo (nāk-), nāg-da- *to lick*: Kui nak-a-; Pengo (kic-), kij-ja- *to pinch*: Kui kis-a; Pengo (pac-), paj-ja- *to scratch*: Kui pac-a-. Pengo verbs whose roots end in nj are analysed as having in the personal object base nj-j>nj; the surface result, then, is exactly the same as that of Kui with its suffix -a-; e.g. Pengo cōnj- *to appear*, (cōnj-ja->) cōnja-: Kui tōnj-, tōnj-a-; Pengo mūnj- *to smell, sniff*, (mūnj-ja->) mūnja-: Kui mūnj-, mūnj-a-; Pengo jinj- *to fan*, (jinj-ja->) jinja-: Kui jinj-a-, Kuwi jinj-a-. Notably there is disagreement in Pengo ā-d- *to become, be*: Kui ā-ja-.

Outside the Pengo-Kuwi subgroup, a formation of this kind has been found only in the Konda irregular imperative formations of si- *to give* (Krishnamurti 1969a, 291). Beside the regularly made forms (sg.) si-ʔa, (pl.) si-du with the restricted meaning *give to 3rd person*!, there are found (sg.) si-da, (pl.) si-da-ṭ *give to me*! Burrow has pointed out (foreword to Krishnamurti 1969a, xvi) the parallelism with Kui sī-mu, sī-du, sī-a-mu, sī-a-ṭu, Kuwi hī-mu, hī-du, hīy-a-(mu), hīy-a-du, Pengo hiy-a, hiy-a-ṭ, hī-da, hī-da-ṭ. As is the case with the Koṇḍa relics of the motion base, we must assume with Burrow that these relics are evidence for Koṇḍa's formerly having had a productive personal object base construction which has been lost except for the relics sida, sidaṭ.

Leaving aside for the moment the ultimate origin of the formation, it is possible to make some reconstructions within the subgroup Koṇḍa-Pengo-Kui/Kuwi itself, essentially a type of internal reconstruction.

Since Pengo and Koṇḍa (not in general as closely related to one another as Pengo is to Kui/Kuwi) agree in having a dental in the base for the verb *to*

give (Pengo hī-da, Konḍa si-da) as against Kui/Kuwi (closely related), which are without a dental (Kui sī-a-mu, Kuwi hīy-a/hīy-a-mu), we would follow the canons of comparative grammar in inferring that this verb in reconstructed Konḍa-Pengo-Kui/Kuwi had a dental, and that Kui/Kuwi lost it within their own development. It would be not unjustifiable to extrapolate from this one verb to all verbs of the Kui 3rd conjugation, all of them being roots ending with a vowel. We may extend this further to the verbs of the Kui 1st conjugation, which have no dental, in contrast with the corresponding Pengo verbs, which have d. It is by now probably demonstrable that the Kui 1st conjugation corresponds on the whole to Tamil (and SDr.) verbs which have -i- in the past tense. For these a phonological canonical form is clear enough, but it need not be investigated here, beyond quoting Subrahmanyam (1971, 215-7), who says that *-i- "occurs after monosyllabic or disyllabic stems ending in one of the stop consonants (single, geminated, or preceded by a nasal) with the exception of monosyllabic stems containing a short vowel and ending in one of the single stops, k, ṭ, and ṟ." One may think, then, of a phonetic development, viz. loss of d, based on this phonological environment, to which should be added that environment seen in the 3rd conjugation, viz. vowel-ending roots. Unfortunately, the 2nd conjugation, in which the Kui suffix begins with t, contains roots which in canonical form overlap with those of the 1st and 3rd conjugations. The problem cannot be pursued further here, but probably admits of solution. The evidence, then, leads us to conclude that the personal object bases were originally made in the whole of the subgroup Konḍa-Pengo-Kui/Kuwi with a suffix that began with a dental stop, t or d.

Examination of the remainder of the suffix shows a quite different language distribution. Kui has -a- and -ara-/-aja-, essentially divided in Winfield's description between affirmative and negative, though, as has been stated above, the -ara- form is found alternatively in some places in the affirmative paradigm also (more in the dialect treated by Burrow and Bhattacharya than in Winfield's), and the short form is also found in the negative in some verbs. Nothing corresponding to -ara-/-aja- is found in Kuwi or in Pengo. It seems likely that in this matter we should not reconstruct on the basis of the number of languages, since there seems to be no possibility of explaining the Kui split between -a- and -ara-/-aja-. The principle to be used is that of the relative complexity of the system in the languages; the system which is most complex is likely to be the original one, which has been simplified, i.e. regularized, in several of the languages. I.e. we find it probable that Kui is nearer to the original state of affairs, and Kuwi and Pengo have simplified independently (since the end results in these two languages are in fact somewhat different), while Kui itself shows some enlargement of the incidence of the longer allomorph (differently in different dialects), and of the shorter allomorph also.

Reconstruction reached by these methods, then, is *-t/da- in the affirmative, *-t/dara- in the negative. The alternation between r and j in Kui is still

a puzzle; j might represent PDr. *r̲, and it may be that r also represents *r̲; nothing further seems possible at the moment.[20a]

Having reached this reconstruction for the subgroup, we are now faced with the problem of the origin of these bases. As usual, the possibilities are retention of a PDr. feature, or innovation on the basis of something different in PDr.[21]

I argued (1945) for retention in Kui of a PDr. feature of the verb system, having besides the Kui evidence only Schulze's imperfect account of Kuwi and knowing nothing of Pengo or Konḍa. I found in the personal object suffix, with its two forms in Kui, the origin of the irregularities in the paradigms of *ta- (*tăr-, *tā, *tant-) *to give to 1st or 2nd person* and *va- (*văr-, *vā, *vant-) *to come* in the other languages of the family. The 1945 paper went a long way in working out the details of development of these two verbs; analysis, both descriptive and comparative, especially as regards Brahui, was continued in 1962a and 1962b. It has become quite clear, among other matters, that *ta- meant *to give to 1st or 2nd person*, that this meaning was retained in general in SDr., except for Kannaḍa, that Brahui generalized the meaning *to give*, that Kolami retained remnants with the meaning *to give*, and that otherwise (Ka. Tu. Te. Go. Konḍa Pengo Manḍa Kui Kuwi) the developed meaning is *to bring*.

On the other hand, Burrow and Bhattacharya (1961, 131-2) suggested, though tentatively, that the personal object bases are an innovation in Kui/Kuwi: "These 'particles' seem to represent, in a partly disguised form, the common Dravidian verbal base *tā/tar-* 'to bring, to give (to you or me)', which functions elsewhere in Dravidian (e.g. already in Old Tamil) as an auxiliary verb combined with the verbal root. The restriction of its reference to the first and second persons remains the characteristic feature of this type of conjugation in Kui. The elision of the initial *t-* in *-a-* and *-ara-* is natural in such a subsidiary verb." This was apparently written before the Pengo feature became known to them. Our reconstruction within the subgroup makes the loss of t referred to in the last sentence quoted from Burrow and Bhattacharya a secondary feature of Kui/Kuwi alone. Our reconstruction of the suffix as *-t/da- and *-t/dara- (? *-t/daṛa-) now goes a long way towards favoring this proposal made by Burrow and Bhattacharya over my earlier proposal. If my earlier proposal were still to be favored, it would be necessary to explain the dental (which was rather ignored in the 1945 paper). Nothing suggests itself except the non-past suffix *-tt-/*-t-, analysed by Subrahmanyam (1971, 313-6): he suggests that it was in PDr. a marker for the habitual, which spread, especially in CDr., into future and present-future at the expense of the labial suffix (*-pp-/*-v-). This suffix as the origin of the personal object base suffix seems very implausible semantically, especially since moreover the non-past suffix is represented in Kui/Kuwi in the appropriate paradigm, and I think it may be ignored.[22]

I would now adopt the suggestion of Burrow and Bhattacharya, since it

certainly explains the dental. The alternation of r and j in Kui is still unexplained, no matter what theory is adopted as a whole, and unless some other Kui dialect or Manḍa provides additional evidence, it may well remain unexplained. I feel some reluctance to abandon my earlier reconstruction, which explained the irregularities of *ta- and *va-, now left as irregular as before within PDr., but the dental suffix, earlier neglected by me, is in fact a crucial matter which is now taken care of. It may be noted, finally, that for the Burrow and Bhattacharya hypothesis to work, my reconstruction of the semantics and semantic development of *ta- must be adopted. This in fact, yields an important item of relative chronology; at the time of the innovation in the Konḍa-Pengo-Kui/Kuwi subgroup, *ta- still had the PDr. meaning *to give to 1st or 2nd person*; the CDr. innovation in meaning (>*to bring*) had not yet taken place or had not yet spread to Konḍa-Pengo-Kui/Kuwi.

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NOTES

*Some of the matters investigated in this paper were presented to the Linguistics Group, Berkeley, in the spring of 1971. Discussion with members then and since then has helped me to clarify some points.

1. This was treated in considerable detail by Krishnamurti. I stated it with a few examples in 1970 (101-3), inadvertently and unfortunately without giving the reference to Krishnamurti's work. Zvelebil (1970, 85 fn. 11, 184) attributed the rule to me, an honor which I must disclaim.

2. Subrahmanyam (1971, 48) noted the Malto formation, but that in Kuṛux escaped his notice, and he carried the matter no further.

3. A further exploration of Malto -gr- is in fn. 18 below.

4. The material presented in this section was drawn first from the collectanea for *DED*, but has been enlarged by items from *DEDS* and *DEN*, and then by a thorough combing-out of everything that I could find in Winfield (1928, 1929) on Kui, Burrow and Bhattacharya (1963) on Kuwi, and (1970) on Pengo, the Gondi material, especially Burrow and Bhattacharya (1960) and Subrahmanyam (1968), the latter on the Adilabad dialect and Koya, and Pfeiffer (1972) on Kuṛux. No indications of sources have been given for new items that appear here: in the lists below, the serial numeration of an entry is followed in brackets by a number which is that of *DED*, *DEDS*, and *DEN*, without indication of which of the three actually contains the items. Occasional items were not recorded in these three; they are to be found in the descriptive accounts of the languages. Note that Kuṛ. (instead of Kur.) is the abbreviation for Kuṛux (instead of Kurukh), for which see Pfeiffer (1972, 2). I have followed Pfeiffer also in the transcription of Kuṛux items, writing x for the old spelling kh and changing the shapes of some words on which he has new information or interpretation.

5. Winfield gives for one such verb, tōg- *to kick*, the plural action stem totk- (which in one place he defines as *to kick behind*); this can only be said to be irregular, and there is no etymological parallel recorded.

6. The Kui metathesis of kp>pk and gb>bg (regular in all occurrences) is found also in Kuwi (only the first), Pengo, and Manḍa (only the second is known to me so far in this language).

7. For Kui g and s: PDr. *ṛ in this example and several below, see Burrow and Bhattacharya 1961, 122-4.

8. The Kui morphology is not certain, but the form is from the simplex (*aṛ-, *eṛ- [?]; see Krishnamurti 1961, 311, no. 181) plus a suffix (-i-) by aphaeresis or metathesis.

9. In items that have no etymologies (so far, at least) Gondi also shows pairs (e.g. *Voc.* 1772) and plurale tantum forms (e.g. *Voc.* 193, 198, 838, 1411, 1806, 2063, 2807, 2955, 3304, 3417).

10. In the Konḍa publication, Krishnamurti (1969a, 278-9) treated the -pa-/-ba- derivative forms as reflexives. For a few, to be sure, the subject and the implied pronominal reference of the object are identical, e.g. noṛba- *to wash one's own hands and feet*: noṛ- *to wash or clean with water*, but for a few they just as certainly are not, and plural action is in point, e.g. sī- *to give*: sība- (addenda, 418) *to distribute, serve, share*. For others, of course, plural action meaning can only be suggested *ad hoc*, even though reflexive meaning seems out of the question, e.g. nēspa- *to clean or winnow*, sīrba- *to cry*. Burrow, in his review of the volume (1972, 142-3) takes exception to Krishnamurti's interpretation in the same way that I do above, as well as on the grounds of the Pengo parallel formation, and of the

normal Konḍa periphrastic reflexive construction which is related to these items. Burrow's and my criticisms were arrived at independently; mine was already contained in my 1971 version of this paper. Krishnamurti now, I think, agrees with us (private communication). It may be noted that four Konḍa items with a -k- suffix have been added to Krishnamurti's material (entries 58, 69, 70, 107 below) and that Krishnamurti's definitions for three of them actually contain plurality of objects (*to cut down trees in a forest, to burn heaps of hacked forest-wood, to insert flowers behind the ear, in braid, etc.*).

11. Six plurale tantum forms occur only in Pengo-Kuwi, with simplex forms elsewhere. They have no hearing on the thesis of this section, but may be collected here.

(306) *select, weed out*—*āy-/*āc- (Ta. Ma. Ko. Koḍ. Ka. Tu. Nk. (Ch.) Pa. Ga. Go. Konḍa Kuwi): Kui āsk-.

(3311) *fly*—*pāṛ-/paṛ-V- (Ta. Ma. To. Ko. Koḍ. Ka. Tu. Te. Go.): Kui pāsk-.

(3960) *exchange*—*māṛ- (Ta. Ma. To. Ko. Koḍ. Ka. Tu. Te. Konḍa): Kui māsk-, Kuwi māsk-.

(2552) *tremble, totter*—Ta. taḷampu, Ka. taḷar, Te. talaru: Manḍ. dalka-.

(S540) *wipe off*—Konḍa tēl-: Manḍ. dēlka-.

(4502) *crack, explode*—*veṭ-i- (Ta. Ma.): Manḍ. veṭ-pa-.

12. In Telugu, the construction of stem plus -ul plus verb āḍu is found also in the *DED* material in 427 iggul-āḍu, 2728 dumukul-āḍu, 3054 ḏul-āḍu, 3255 pākul-āḍu (*to creep, crawl*), 4512 vedakul-āḍu. The stem pāk- here is equivalent to Kuwi prāk- (written by Fitzgerald pṛāk-).

13. *DED* and *DEDS* 4472 did not get the meanings correct for Konḍa. *DEN* finally straightened the matter out: ven- *to hear*, venba- *to ask*, veR- *to speak, tell* (i.e. causative of ven-). The Tamil forms viṉāvu and viṉā seem, so far as can be judged from Sangam indexes, to be secondary to viṉavu; both in Tamil and Malayalam the basic meaning is apparently *to ask*. The discussion of the meanings of this etymological group was attempted by E. Annamalai (1970), but he did not have the Pengo-Manḍa evidence and his conclusions may have to be reconsidered.

14. The Go. Konḍa Pe. forms, now in *DEDS* 258, must be moved to 3140; cf. Subrahmanyam 1969, 745.

14a. [That -k- of this form is related to the Kui plural action formation was already noted by E.H. Tuttle in his review of Bray's 1934 Brahui vocabulary (*JAOS* 56, 350-60 [1936], esp. 357). Tuttle used the term "multiplex" for Winfield's "plural action". He did not investigate the matter further.]

15. Important recent treatments of Tamil āytam (-h-) include most recently: Kuiper 1958, 191-207; *id.*, 1972, 288; Krishnamurti 1963, 557-8, fn. 4; *id.*, 1969b, 320.

16. 80 (1192) Kuṛ. xāp-, Malt. qāp-, is not counted, since here we are dealing only with the velar suffixes.

17. The attempt by Bhat (1970) to set up correspondences for the PDr. velar consonants in Kuṛux and Malto is vitiated in part by his using as examples Kuṛux and/or Malto forms which do not have corresponding velars in other languages.

18. Malto forms intransitive bases from transitives by adding the suffix -gr-, or for a few verbs, -r- (Droese 1884, 76). This is noted by Subrahmanyam (1971, 48), but without any attempt at a solution. Krishnamurti (1961, 146-7) made the connection for the corresponding Kuṛux -r- with an intransitive formative *-Vr- of SDr. and Telugu (see section A above), without noting the Malto formation. The more usual Malto -gr- is still a problem. It undoubtedly contains this same -r-. Is it possible that -g- is the plural action suffix? In the Malto material treated here, entry 106 assumes that pucgr- *to become loose* is to be analysed as the intransitive in -r- from *pucg- *to loosen*, a plural action formation corresponding to puc- *to take off* (i.e. *loosen*) *clothes*; the meaning *to become loose* is attested in Gondi. Otherwise, in entry 133 Malto birg- *to mix, join* is a pl. tant. (transitive), to which corresponds the intransitive birgr-. This is a small amount of evidence, but it looks in the direction suggested.

19. Whether he had discussed this verb earlier and more fully, I have not discovered. In 1931 (745-52) he attempted an analysis of words with a basic meaning "motion" and initial ka- or kā-, and quoted Mark Collins (from a publication not available to me) as postulating a radical kal/kāl/kar; but all such analysis would still be premature.

20. See now Pfeiffer (1972), esp. 66, no. 409, 119, no. 989, 177-8, no. 11, 187-8, no. 64, for another type of interpretation, which, however, I find less than convincing, for reasons which I have set forth in a review in *Language* [50, 755-8 (1974)].

20a. [One more instance of Kui j where r is expected was already in *DED:* 3267 paja *to hew, cut down* (: *par-). *DEDR* adds in 3246 (=*DED* 2655), with a query: tija *to turn back, return, retreat* (: *tir-). These at least look in the direction of j being a sporadic representation (? dialectal) of *r in Kui. But the problem cannot be regarded as satisfactorily solved.]

21. L.V. Ramaswami Aiyar (1929b, 6-7) wrote about the Kui formation: "The rationale of the practice is probably only the desire to introduce some kind of distinctive emphasis"; r/j he characterized as "a euphonic hiatus-filler". He might have been able to go further if he had had the Pengo and Konḍa evidence.

22. Tyler in his review of the Pengo book (1972, 106) suggested sketchily that my hypothesis of 1945 was correct and that in the rest of Dravidian the dental suffix of the personal object bases yielded the non-past suffixes *-tt-/*-t-. His argument is not yet at hand.

Chapter XIII

PERSONAL NAMES OF THE COORGS*

THE PERSONAL NAMES of the Coorgs have not been described in any detail. Work on Indian onomastics in general (in an unpublished paper by the author) has provided a methodological framework, and has furthered interpretation of his Coorg material both in outline and detail. A number of names are based on mythology peculiar to the Coorgs.

1. The personal names of the Coorgs have not yet been described in any detail. The excellent ethnological account of the Coorgs, M.N. Srinivas, *Religion and Society among the Coorgs of South India* (1952), contains numerous names but attempts no onomastics. Nor does the account of the Koḍagu language, M.A.G. Garman, *A Grammar of the Coorg Language* (Ph.D. thesis, University of Edinburgh, 1973). None of the older accounts of Coorg have anything in detail on the matter. In a preliminary account of Toda personal names (Emeneau 1938a), in the introductory remarks (p. 205) I wrote of the Coorg naming system: "A male or an unmarried female is identified by the sib-name, the father's personal name, and the individual's personal name, in this order. A married female bears her husband's sib-name, his personal name, and her own personal name." I noted also that there is a rather small stock of personal names, "some sixty names for men and a slightly smaller number for women"; I cannot now be more exact. My field notes from 1935-38 contain some data on personal names, to which have been added a few names from Srinivas (1952), Richter (1870), and Graeter (1878). Interpretation in the field was scanty. Work on Indian onomastics in general (in a still unpublished paper) has provided a methodological framework, and has furthered interpretation of this Coorg material both in outline and in detail. I have come to a realization, moreover, that the legends reported in Srinivas's 1952 book provide clues to a number of names whose interpretation had previously eluded me. It now seems profitable to present the material on the personal names, with full realization that there are still points that are obscure, and that much more material would be desirable. A few names have already been contributed to Mayrhofer 1971 (p. 81, n. 14); some of the interpretations there are now superseded. With the sib-names it is at present impossible to do anything useful, beyond noting that in putting together an individual's name the initial member, the sib-name, is in the genitive case; my material contains too few sib-names to make analysis possible.

2. An example of a man's full name is Pudiataṇḍa Subbayyë Ma·dappë. Most frequently in modern times and modern types of communication (Eng-

**JOAS*, 96.7-14 (1976).

lish newspapers, books, lists, etc.) the first two names are represented by initials, as in P.S. Madappa (the same man as in the last sentence), K.J. Chengappa (i.e. Caŋgappë), or P.M. Ponnappa (i.e. Ponnappë). Frequently also the father's name is omitted, so my chief informant was commonly identified as Kï·tianḍa Ka·ḷappë (or K. Calappa).

3. Modern Coorg personal names, when formal, belong with few exceptions to that South Indian type in which a single element is followed by a kinship term drawn from those that denote individuals superior to EGO. The few exceptions that are known to me seem to be straightforward borrowings from Hinduism, e.g., Gaṇapati and Vasu, and may well be a very modern imitation of Kannaḍa usage.

The kinship terms that are commonly used are, for men, aṇṇë *elder brother or male parallel cousin* (*DED* 112), appë *father* (*DED* 133), ayyë *father's brother or male parallel cousin* (*DED* 163), and for women, akkë *elder sister or female parallel cousin* (*DED* 24), avvë *mother, mother's sister or female parallel cousin* (*DED* 232), ammë *mother* (as used in Malayalam and Kannaḍa; *DED* 154). In addition, accë is recorded in two names, for which see §14; it is presumably the Malayalam accan *father* (*DED* 46). All these are honorific terms because of their denotation of superiority in age or generation to EGO. In addition, several of them are used as second member of Coorg god names, viz., appë, ayyë, and avvë, in 1 Ayyappë (i.e. father Ayyë), 3 Accayyë, 5 Akkavvë, 8 Ka·riyappë, 9 Pemmayyë, 10 Co·mayyë. It is possible that these last (and possibly others as yet unidentified), when used as personal names, are a simple theophoric nucleus around which could cluster similar-appearing names of the Kannaḍa type, which end in the etymologically related kinship terms, which, however, in Kannaḍa refer to the person bearing the name rather than to the god who is referred to by the first member of the name (e.g., in Kannaḍa, male names Nāgaṇṇa, Nāgappa, and the female name Nāgavve all refer in the first member to the serpent god Nāga, but in the second member to the bearer of the name). Once this non-Coorg style had joined the Coorg simple theophoric names (if this assumed process is correct), all the features of the South Indian naming system involving kinship terms could make their way into Coorg practice. Most obviously, Ayyappë, the god's name, yields Ayyaṇṇë and Ayyakkë, Accayyë yields Accappë, Accakkë, and Accavvë, Co·mayyë yields Co·mappë, Co·maṇṇë, Co·mavvë, and Co·makkë.

4. To assume that it was Kannaḍa style that was at the basis of the Coorg system, rather than that of some other South Indian community, is not certain, but at least we have a history of Kannaḍa influence in Coorg from the 9th century on. As reported by Srinivas (1952, pp. 9-15), we know of Kannaḍa names containing kinship terms appearing in the Coorg country from the 12th century. Pemma-Vīrappa, a member of the Changāḷva dynasty (which was first Jain in religion, then Lingayat), fought a Hoysala general in or just after 1174. Kannaḍa speakers with such names become more frequent in the

fuller, later records of Coorg, especially in the Lingayat dynasty that ruled there from the 17th century to 1834 A.D.: Doḍḍa Vīrappa (Vīra Rāja II, who became rāja in 1686); Muddayya Rāja (died 1770); the latter's son Dēvappa Rāja. There is undoubtedly Malayalam influence in the layer of simple theophoric names (e.g., 1 Ayyappë = Malayalam Ayyappan) and in some others (e.g., those with Co·më [10] and Co·ndë [32] can only be borrowings from Malayalam on the basis of their phonology), but numerous names in the Kannaḍa-type layer can be nothing but borrowings from Kannaḍa (e.g., 19 Nañjappë < Śiva Nañjuṇḍa *the poison-drinker* at Nanjangod temple in Mysore; only slightly less certainly 20 Timmayyë < Tirumale, the hill where Śrī-Venkaṭa's temple is, near the east coast).

5. It was reported earlier (Emeneau 1938b, p. 141) that akkë and ammë are used in unmarried girls' names, and that upon marriage avvë replaces the others. Whether there is a similar male usage (aṇṇë changed to appë or ayyë) I do not know, but I would assume that there is not, since P.M. Muthanna (i.e. 28 Muttaṇṇë) was the author of a book listed by Srinivas (1952, p. 247), and so presumably of adult and married status.

6. I recorded two male names with ammë *mother*, Ayyammë and Accammë. These, however, are names of members of the splinter group called Amma Coorgs (Srinivas 1952, p. 34). They are highly brahminized and claim descent (in one story) from a Coorg man and a Brahmin girl, who is their ammë *mother*. All men of this group apparently (so Srinivas) have names ending in ammë.

7. In recording names I did not press very hard to find restrictions on the use of the various kinship terms, and gaps in the sets of names are not perhaps to be taken too seriously. However, though a few complete sets were recorded (e.g., 30 Ponnayyë, Ponnappë, Ponnaṇṇë, Ponnavvë, Ponnakkë, Ponnammë, set 29 with Pu·v-, and set 12 with Mand-), one form was explicitly ruled out, viz., *Bo·pappë is not found beside 40 Bo·payyë and Bo·paṇṇë. This suggests that the consonant in the kinship term may not repeat the consonant immediately preceding the vowel of the kinship term. In fact, I did not record *Ayyayyë, *Appappë, *Aṇṇaṇṇë, *Akkakkë, *Co·mammë. However, 29 Pu·vavvë was recorded (<pu·vï);[1] if this is correct, the absence of *De·vavvë in set 17 may be only accidental.

8. The semantic categories into which the first elements of names of the Kannaḍa type fall are those of South Indian Hindu names in general. Theophoric names are the central class. Here we have: names derived from Coorg gods, mythological entities, and sacred entities (including unchanged god names, as was indicated above); names derived from Hindu gods naturalized in Coorg; names derived from Hindu gods who play in Coorg a less completely naturalized role (these names in some cases are clearly borrowings from other languages, e.g., the sets with 18 Cubba, 20 Timma, 19 Nañj-, 22 Kuṭṭi, etc.). The remaining two classes are: names derived from words denoting beautiful or desirable or auspicious things or qualities; and names derived

from words denoting undesirable things or qualities (these last are "apotropaic" names, warding off evil by depreciating the bearer of the name). A small residue is so far unanalysed; presumably they would yield to analysis with more information.

9. Many of the sets of names are accompanied by hypocoristics, i.e. pet names, familiar or non-formal names. In these the kinship term or the final vowel of the basic stem is replaced by a hypocoristic suffix. There are two suffixes, -u and -i. The distribution is not quite clear, partly because of gaps in the information, partly because of a few inconsistencies in what was recorded. A rule that seems to hold with few exceptions is that -u is found in male names, -i in female names. There are 9 sets in which this contrast is found; e.g. in set 28, beside the series, male Muttappë, Muttaṇṇë, female Muttavvë, Muttammë, based on muttï *pearl*, there are two hypocoristics, male Muttu, female Mutti; in set 10 beside the series, male Co·mayyë, Co·mappë, Co·-maṇṇë, female Co·mavvë, Co·makkë, based on the name of the bull god Co·-mayyë/Co·më, there are two hypocoristics, male Co·mu, female Co·mi. In addition, 13 male hypocoristics in -u were recorded (e.g., 1 Ayyu), without any corresponding female form; in almost all these sets there are no female names at all (e.g., 11 Caŋgappë, Caŋgu), but in one or two there was almost certainly accidental failure to record a female hypocoristic (e.g., 12 Mandu, but no *Mandi). In 3 sets there are female hypocoristics in -i without a corresponding male form; in two of these sets there are no male names at all (5 Akki, 7 Taŋgi), and in set 29 based on pu·vï/pu· *flower*, with Pu·vi, the absence of *Pu·vu may be accidental. In all these sets the basic form ends in -ï, -ë, -a (e.g., 34 Bo·ju, Bo·ji<bo·ja *beauty*), or -e (7 Taŋgi<taŋge *younger sister*), so far as the final can be determined. When the basic form ends in -i, the situation is different and very uncertain. When this -i is kept before a kinship term (e.g., 14 Ka·ve·riyappë), the hypocoristic form is merely the stem in -i; for Ka·ve·ri, this is recorded as both male and female, but for boḷḷi *silver*, which occurs in set 31 in both male and female names, Boḷḷi was recorded as only male, and no female was recorded; in set 36 ciṭṭi *small* (a Kannaḍa word) was recorded only in male names, and the hypocoristic Ciṭṭi is only male. In the three sets in which -i is not kept before a kinship term (i.e. is treated like -ï, -ë, etc.) one set (27) has only the male name Jo·-yappë, but is based on jo·yi (*a yogi*), and the male hypocoristic is the stem Jo·yi. The other two sets have both male and female names, the bases are ciṇṇi *small* (35 Ciṇṇappë, etc.) and kuṭṭi *child* (22 Kuṭṭappë, etc.; almost certainly a borrowing of the Malayalam form kuṭṭi in *DED* 1390, Kuṭṭikṛṣṇa being a Malayalam equivalent of Sanskrit Bālakṛṣṇa), the hypocoristics Ciṇṇu and Kuṭṭu have female reference, and no male hypocoristics were recorded (though one would expect perhaps *Ciṇṇi and *Kuṭṭi). In set 31 derived from boḷḷi *silver* both treatments of -i are found in the doublet Boḷḷi-yappë/Boḷḷappë and in female names (Boḷḷiyavvë: Boḷḷakkë, Boḷḷammë); for the male hypocoristic both Boḷḷi and Boḷḷu were given, and no female

hypocoristic was recorded. Two other sets are very problematic. Set 13, De·-cavvë, De·cammë, has no corresponding male names, and two hypocoristics were recorded as female, De·ci and De·cu; the basic stem is probably de·sa/de·ša *the* (*sacred*) *country* (*Coorg*). I recorded set 32, Co·ndavvë, Co·ndammë, as having no male counterparts; Co·ndu was given as female hypocoristic, but both Garman (1973, p. 150) and Srinivas (1952, pp. 49, 203) record in a legend a man named Co·ndu; the name is a male hypocoristic of this series, for which see the next paragraph.

10. In history and legends as recorded by Srinivas (1952), some Coorgs are identified by names ending with kinship terms. Others, four in all, are named with shorter forms, lacking the kinship terms and ending in -u (his spelling, but certainly ours also): (p. 13) Uttu Nāyaka (the latter form meaning *chieftain*) figures as an opponent of Vīra Rāja II, who began to rule in 1686 (cf. our set 39 Uttayyë, Uttappë, Uttu); (p. 161) a chieftain Achchu Nāyaka is recorded circa 1670 (cf. our set 3 Accayyë, etc. to which Accu is added from this reference); (pp. 49, 203) the legendary Kullachenḍa Chōndu is recorded by Garman (p. 150) as Kullacaṇḍa Co·ndu (this is added to our set 32, otherwise female only, with female hypocoristic Co·ndu); (p. 203) the legendary Chendappanḍa Kungu has no counterpart in my material. It is clear that these forms in -u are in form identical with the modern hypocoristics. Whether such use reflects for an earlier period a much wider formal currency of these shortened forms than is usual now, or whether they are in fact non-formal forms elevated into formal use, cannot be determined at present; but it should be noted that Kannaḍa inscriptions (Kushalappa Gowda 1972, pp. 446-56), which are certainly formal documents, also contain numerous hypocoristics, often beside the longer, more formal form in the same inscription.

11. The problem of linguistic statement posed by these hypocoristics in -u need not be discussed here. It suffices to say that generative and other grammarians have discussed the problem of the Koḍagu vowels u and ï as they occur final in words, especially Emeneau (1970), Bright (1972), and Garman (1973). None of them has taken into account these forms, which add to the relevant material six pairs of words in which -u : -ï are in minimal contrast: 11 Caŋgu: caŋgï *conch shell*; 12 Mandu: mandï *village green*: 28 Muttu: muttï *pearl*; 30 Ponnu: ponnï *gold*; 16 Ka·ḷu: ka·ḷï *a grain* (borrowed from Kannaḍa; *DED* 1252); 39 Uttu: uttï *untie*![2] Garman certainly recorded 31 Boḷḷu as a hypocoristic form with -u (1973, pp. 35, 142), but it did not lead him further in analysis.

[The following paragraphs are referred to in table 1.]

12. The god Ayyappë is said by Srinivas (1952, p. 181) to be the most common male among the village deities. He is (p. 224) the god who hunts by night in the jungles with a pack of dogs, and he presides over the Coorg's hunting. He is, of course, the god Ayyanār of Tamilnad and Ayyan/Ayyappan of Malabar.

TABLE 1

A (1) Coorg gods, mythological entities, sacred entities

	male			female			
1							
2	Appayyë, §13	Ayyappë, §12	Ayyaṇṇë Appaṇṇë	Ayyu	Ayyakkë		ayyë *uncle* appë *father*
3	Accayyë, §14	Accappë		Accu	Accavvë	Accakkë	Acci	Malayalam accan *father* ajjë *grandfather*
4		Ajjappë, §14			Akkavvë, §14		Akkammë	Akki	akkë *elder sister*
5									aṇṇë *elder brother*
6	Aṇṇayyë, §14	Aṇṇappë		Aṇṇu					
7					Taŋgavvë, §14		Taŋgammë	Taŋgi	taŋge *younger sister*
8		Ka·riyappe, §14							
9	Pemmayyë, §15								
10	Co-mmayyë, §16	Co·mappë	Co·maṇṇë	Co·mu	Co·mavvë	Co·makkë		Co·mi	the bull god Co·më
11		Caŋgappë, §15		Caŋgu					caŋgï *conch shell*
12	Mandayyë	Mandappë	Mandaṇṇë	Mandu	Mandavvë	Mandakkë	Mandammë		mandï *village green*, where socio-religious cremonies are held
13					De·cavvë		De·cammë	De·ci/De·cu	de·s/ʃa *the (sacred) country (Coorg)*[3] (<Sanskrit dēśa-)
14		Ka·ve·riyappë		Ka·ve·ri	Ka·ve·riyavvë		Ka·ve·riyammë	Ka·ve·ri	the sacred Ka·ve·ri river (see n. 8)

TABLE 2

				A(2) Hindu gods naturalized in Coorg				
15	Ma·dayyë	Ma·dappë		[Ma·du][5]				Skt. Mahādeva>Ma·de·-vī
16	Ka·ḷayyë	Ka·ḷappë		[Ka·ḷu][5]				Skt. Kālī>Kāḷi (cf. Padra·ḷi<Bhadrakālī)
				A(3) Hindu gods not completely naturalized in Coorg				
17	De·vayyë	De·vappë				De·vakkë	De·vammë	Skt. dēva *god*
18	Cubbayyë[6]	Cubbappë		Cubbu[7]	Cubbavvë		Cubbammë	Cubbi	Skt. Subrahmaṇya>Subba
19		Nañjappë		Nañju	Nañjavvë		Nañjammë	Nañji	Ka. Nañjuṇḍa *poison-drinker*, i.e. Śiva Śrīkaṇṭha
20	Timmayyë			Timmu					Ta. Tirumalai, Ka. Tirumale the mountain of god Veṅkaṭa
21	Na·ṇayyë	Na·ṇappë		Na·ṇu					Skt. Nārāyaṇa>Ta.-Ma. Na·ṇu
22	Kuṭṭayyë	Kuṭṭappë			Kuṭṭavvë		Kuṭṭammë	Kuṭṭu	Ma. Kuṭṭikṛṣṇa=Skt. Bālakṛṣṇa
23	Gaṇapayyë		Gaṇapaṇṇë	Gappu					Skt. Gaṇapati
24		Kuśalappë							Skt. Kuśala=Śaṃkara=Śiva
25	Ma·cayyë			Ma·cu	Ma·cavvë	Ma·cakkë	Ma·cammë	Ma·ci	Skt. Mahāśiva, Ka. Mācidēva, Mācayya, Mācaṇṇa
26					Gaŋgavvë		Gaŋgammë	Gaŋge	Sk t. Gaṅgā[8]
27		Jo·yappë		Jo·yi					Skt. yōgin->Prakrit jōi-
				B Beautiful or desirable things or qualities				
28		Muttappë	Muttaṇṇë	Muttu	Muttavvë	Muttakkë[9]	Muttammë	Mutti	muttï *pearl*
29	Pu·vayyë	Pu·vappë	Pu·vaṇṇë		Pu·vavvë	Pu·vakkë	Pu·vammë	Pu·vi	pu·/pu·vï *flower*
30	Ponnayyë	Ponnappë	Ponnaṇṇë	Ponnu	Ponnavvë	Ponnakkë	Ponnammë	Ponni	ponnï *gold*[10]
31		Boḷḷiyappë		Boḷḷi	Bolliyavvë				boḷḷi *silver*[10]
		Boḷḷappë		Boḷḷu		Boḷḷakkë	Bollammë		
32				Co·ndu[11]	Co·ndavvë		Co·ndammë	Co·ndu	co·ndë *red* (the auspicious color;<Malayalam)
33					Cinnavvë[10, 12]				Ka. cinna *gold*
34		Bo·jappë		Bo·ju	Bo·javvë		Bo·jammë		bo·ja *beauty*

Continued (Table 2)

				C Undesirable things or qualities (apotropaic)				
35		Ciṇṇappë		Ciṭṭi	Ciṇṇavvë	Ciṇṇakkë	Ciṇṇammë	Ciṇṇu	ciṇṇi *small*[13] Ka. ciṭṭi *small*[13]
36		Cittiyappë	Cittiyaṇṇë						
37	Me·dayyë	Me·dappë		Me·du		Me·dakkë		Me·di	me·dë *man of a low caste*, fem. me·di[14]
					D Unanalysed				
38	Biddayyë	Biddappë		Biddu					
39	Uttayyë	Uttappë		Uttu[15]					
40	Bo·payyë		Bo·paṇṇë	Bo·pu					
41	Karumbayyë								

13. In Tamil, Malayalam, and Kannaḍa, names of this type are derived from *appan *father*, referring to a chief male god, Śiva, or Viṣṇu or the like. No reference of this type has been discovered within the Coorg mythology, and it is probable that the names in this set are borrowings, as is Appaccë with final accë from Malayalam accan *father* (see § 14).

14. Srinivas (1952, pp. 210, 233) gives the story of the deities "Kākkōṭ Achchayya and Akkavva", i.e. elder brother Accayyë and younger sister Akkavvë, who leave Malabar to seek shelter in Coorg. When they arrive in Coorg, they think it necessary to abandon the freer manners of Malabar and to have an escort-chaperon. Accordingly, they take as servant a Poleya (low caste) god named Ka·riyappë and settle in the village "Kākkōṭ". The first elements of the former two gods' designations, accë and akkë, are the first elements of two sets of names (3 and 5), and the gods' relationship terms, aṇṇë *elder brother* and taŋge *younger sister*, are the first elements of another two sets (6 and 7). accë *father* (set 3) is a borrowing from Malayalam accan, which etymologically is cognate with Koḍagu ajjë *grandfather,* which appears in the name Ajjappë (set 4; Srinivas 1952, p. 182). This same accë appears as second element in one name only in my record, Appaccë, which presumably is a Malayalam form belonging to set 2 (Appayyë, etc.; see §13); Richter (p. 121) records Uttaccë (spelled Uttacha), which is also presumably a Malayalam form belong to set 39 (Uttayyë, etc.). The third god in the story, even though a Poleya god, yields the Coorg theophoric name 5 Ka·riyappë; its most illustrious modern bearer is General K.M. Cariappa, the first Indian Commander-in-Chief of the Indian Army.

15. In the story of the creation of the Coorg gods (given in part by Srinivas 1952, pp. 233-6, and supplemented from a longer version which I recorded), there are two conch shells (caŋgï; Anglo-Indian *shank*). One, gold, is the birthplace of seven gods, viz., six brothers and a younger sister, of whom the youngest brother is Pemmayyë (set 9); the other, silver, is the birthplace of Ayyappë (set 1) and his twelve dogs; hence set 11 Caŋgappë< caŋgï *conch shell* (Sanskrit śaṅkha-). The first element in Pemmayyë's name is *peru may *greatness* (cf. *DED* 3613, Te. pemme).

16. A series of song formulas details the guardian deities of Coorg and all its divisions, essentially in descending order of magnitude and importance (only a shortened version is recorded in Srinivas 1952, p. 208); I cannot guarantee the correctness of the phonetic recording in all detail.

de·so ba·v oḍevonï
ra·jyo ba·v arasuvo
na·ḍï ba·vë pemmayyë
u·rï ba·vë po·vëdi
ke·ri ba·vë ayyëppë
o·ḍe ba·vë so·mayyë[3]
o·ṇi ba·vë na·tënï

to·ṭa ba·vë pu·dënï
paṭṭi ba·vë paṭṭati
koṭṭi ba·vë kokkëci
okka ba·vë makkëḷo
makka ba·vë pett avvë
paṭṭo ba·vë su·riyë
ku·ḍo ba·va saṇṇu·rë

It is the lord god that rules the country.
It is the king that rules the kingdom.
It is Pemmayyë that rules the district.
It is Po·vedi (=Bhagavatī, wife of Śiva) that rules the village.
It is Ayyappë that rules the section of the village.
It is the bull god Co·më that rules the back grazing-ground.
It is the snake god Na·të that rules the house-lane.
It is the god Pu·dë[4] that rules the garden.
It is the cow Dapple that rules the ground before the house.
It is the buffalo Bendy-horns that rules the cattleshed.
It is the children that rule the family.
It is the mother who bore them that rules the children.
It is the sun that is crowned as king.
It is the moon that rules second to the sun.

Line 6 has the bull god Co·mayyë. It is to be noted that the gods 1 Ayyappë (line 5) and 9 Pemmayyë (line 3) appear in these formulas.

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Footnotes

*My Koḍagu material was collected in several fieldtrips in 1935-38. It remains unpublished except for several journal articles and the vocabulary material that has found place in *DED*, *DBIA*, and succeeding supplementary publications. What I publish here is subsidiary to a still unpublished paper entitled "Towards an onomastics of South Asia". The two tables of this paper contain the names in my collectanea. They are arranged in numbered sets of related names; numbers accompanying any name or names in the body of the paper refer to the set numbers in the tables. [Numbering of paragraphs and some slight rearrangement have been necessary in reprinting.]

1. I recorded *flower* as pu·, but in the Mercara dialect pu·vï. If the former is taken as the first element in this name, it is necessary to assume an inserted -v- after a back vowel, paralleling the inserted -y- after front vowels (Garman 1973, pp. 63-4, §4.1.1, and elsewhere), but Garman says nothing about an inserted -v-. Garman is no help with the *flower* word, since he records pu· in some places (pp. 59, 65), but pu·vï in others (pp. 396, 397); I am unable to find it listed in his Appendix IV (inventory of nominal lexemes).

2. Garman (1973, p. 66) minimizes the number of such contrasts in the language by saying: "But the contrast between /ĭ/ and /u/ is based upon just eleven items in the nominal system, and on a few verb forms such as /ma:ḍu/, 'may do' versus /ma:ḍĭ/, 'do (2 sg imp)'." The nominal forms and the verb forms are hardly comparable, since the former are lexical items and the latter are a paradigmatic difference with more than "a few" examples.

3. The variation in the initial c-: s- is to be explained in terms of the well-known Koḍagu representation of PDr. *c- by c- (rather than s- of the neighboring languages, Tulu s-, Kannaḍa s-/c-), and of the frequent representation of s- in Sanskritic words by c- (cf. *DBIA*, Koḍagu words with c-). The Coorgs' high degree of bilingualism in Kannaḍa produces vacillation between c- and s- even in words of Dravidian origin in which c- is to be expected, such as this Co·mayyë/So·mayyë (Sanskrit Sōmanātha or the like is not at all pertinent). Note caŋgï *conch shell* < Sanskrit śaṅkha-, and vacillation in my or others' recordings of Cubba/Subba (< Sanskrit Subrahmaṇya-), Cu·riyë/Su·riyë *the sun* (Sanskrit sūrya-), Caṇṇu·rë *the moon* (Sanskrit candra-). If there were parallels in the interior of words, there would be no doubt that set 13 with De·c- is derived from Sanskrit dēśa- *country* (cf. in §16 line 1, de·s-). The element ma·c- in set 25 is derived from Mahāśiva, but names with this element are undoubtedly derived from Kannaḍa names Mācayya, Mācaṇṇa, with māc-, and are hardly evidence for a Koḍagu development of Sanskritic -ś- > Koḍagu -c-.

4. Sanskrit bhūta- *a spirit*, through a Tamil-Malayalam form pūta- [pūda]-.

[The following notes are referred to in the tables.]

5. These two are ordinary names of Poleya men, and consequently are not used as Coorg hypocoristics (so my informant).

6. This set was also recorded with s- instead of c-.

7. An infantile version is Dubbu.

8. The Ka·ve·ri river, which rises in Coorg, is regarded as a "southern Ganges", and

on the first of Libra the waters of the Ganges are said to be present at the birth of the Ka·ve·ri. Moreover, on certain occasions Coorg women worship the well of the house, and the ceremony is called "worship of the Ganges". For these two items of information, see Srinivas 1952, p. 215.

9. Richter 1870, p. 141.

10. Is it possible that these names with *gold* and *silver* refer to the two conch shells, one gold and one silver, of the god-creation story sketched in §15?

11. Garman 1973, p. 150, and Srinivas 1952, p. 203, give it as a male name, Kullacaṇḍa Co·ndu.

12. Graeter 1878, pp. 679 f.; Richter 1870, p. 141.

13. But I am uncertain whether these are apotropaic, or merely descriptive, or perhaps with some mythological reference.

14. For a parallel to this apotropaic use of the designation of a lower caste, cf. Sjoberg 1968, p. 318: "The names of certain Dravidian tribal groups—e.g.,/(y)ēnādi/ as used in /(y)ēnādayya/—appear to serve the same purpose [pejorative given as a protective device] in cases where the person is not a member of the group in question."

15. Srinivas 1952, p. 13, names a Coorg chieftain, Uttu Nāyaka, of the end of the 17th century.

Chapter XIV

TODA VOWELS IN NON-INITIAL SYLLABLES[1]

It has been observed (Emeneau (1957), 63-4) that Toda and Kota show loss of many vowels in the non-initial syllables of reconstructed proto-Dravidian (PDr.) or proto-South Dravidian (PSDr.) forms. An attempt was made to state a rule as follows: 'every non-initial syllable of PSDr. (or perhaps PDr.) that has a short vowel loses its vocalic peak in Toda; vowels of all qualities are lost except that *i>y'. Exceptions were noted, and an attempt was made, with some misgivings, to save the rule by several manoeuvres. One of these was to insist that the rule applied only to pre-Toda *short* vowels and to note that some at least of the short vowels that appear in non-initial syllables in Toda words 'originally' were long vowels, i.e. some Toda short vowels in non-initial syllables were derived from pre-Toda by a rule that stated that PSDr. (or PDr.) long vowels in non-initial syllables became short vowels in Toda and remained as such. This latter rule can be demonstrated to hold for a greater number of examples than the few that were mentioned in the 1957 paper. It should be noted at once that the rule applies only to Toda, and that when cognates are to be found, Kota retains the length of these vowels.

Examples of the rule are seen in three nouns which in Tamil-Malayalam contain -ā/-āvu in the syllable(s) after the first.

Tamil kaṉā, kaṉavu, Malayalam kanāvu, kināvu 'dream' (1184)[2]: Toda konof 'id.'. The Toda form can hardly correspond to Tamil kaṉavu, which in any case is a secondary development; it must correspond to Malayalam kanāvu. Contrast the verb forms (1185) *kanay-v- 'to bellow': Toda kenf- and (3050) *ni/enay-v- 'to think': Toda nenf- for Toda nf derived by loss of a short vowel (*ay>pre-Toda *e in some forms, e.g. eboθ 'fifty'<*aym-patu).

Tamil nilā, nilavu, Malayalam nilā, nilāvu 'moonlight, moon' (3113): Toda nesof 'id.'. Again, *nilāvu is indicated as the origin for the Toda form. Contrast (1308) kïsf 'a few': Tulu kela, kelavu, for Toda sf derived by loss of a short vowel.

Tamil palā, palavu, pilā, Malayalam pilāvu, plāvu, plā-kkāyi 'jackfruit' (3290): Toda pasof 'id.'. *palāvu is indicated as the origin of the Toda form.

Of these three, Kota has for the last pala·v, which corresponds exactly to the Toda form. For the other two, Kota has forms which do not correspond: (1184) kancn 'dream', with which compare Kannaḍa kana, kanasu, kanasa, Koḍagu kenaci, and Gondi verb forms kansk-, kanck-, kanjk- 'to dream'; tigḷ veḷp 'moonlight' (i.e. light [veḷp] of the moon [tigḷ]).[3]

Bulletin of the School of Oriental and African Studies, 42.225-34 (1979).

Another noun shows this type of formation only in Kota and Toda, viz. Kota ma·ṭa·v 'white clothes', Toda mo·ṭof 'beautiful clothes' (3960), in which Kota a· in the second syllable is represented by Toda o (<*a, as in the other examples). The verb *māṟṟ- 'to change (transitive)', to which this noun derivative *māṟṟā, *māṟṟāvu belongs, probably is used in the context of changing clothes, putting on gala or freshly washed clothes, in all or most of the languages, although *DED* has recorded only Tulu māpuni and Toda mo·t- (which must be a borrowing from a neighbouring language, because of -t- rather than -ṭ-). Various noun derivatives in the record have the meaning 'change of clothes' (Tamil māṟu, māṟṟu, Malayalam māṟṟu).[4]

Several Toda buffalo names end in -of. One such name is Nesof, which presumably is 'moonlight', an epithet applied because of the animal's beauty. The other names with this ending, however, viz. Kisyof, Nö·ṟof, Po·lof, Koṛof, Nö·ṛof, Pïðof, seem to be complex forms ending in -of, since the first three have initial elements that are otherwise identifiable. For kisy, see Emeneau (1974a), 48, n. 22; nö·ṟ might be 'sun' or 'bangle (in dairy)' but there is no certainty which; po·l might be equivalent to po·s 'milk'. This being so, -of is to be interpreted as a shortening, in a highly unified compound, of the noun *ā, *āvu (283); in Tamil ā means 'female of ox, sambur, and buffalo', in the other languages (Malayalam ā, Kota a·v, Kannaḍa ā, āvu, Telugu āvu, Kuṛux ōy, Malto ōyu) the forms mean only 'cow'. Toda, then, has *āvu>-of 'female buffalo', only in these names, with which Nesof shows convergence of some sort. This equation has already been proposed in Emeneau (1974a), 43, n. 19a.

Two case endings are explicable through the rule. -mil 'upon, over, concerning' derives from *mēl (4173; Tamil, Malayalam, Kannaḍa mēl 'that which is over or above', Toda me·l 'up, high', etc.). In this use the noun form, through construction in a highly unified compound, has become a case ending and shows shortening of the vowel; the change of quality is discussed below. Kota in an equivalent construction has -dan-me·l, i.e. with the long vowel retained.

A suffix of the sociative case ('with') is -wïṛ. Tamil and Malayalam have -oṭu, -ōṭu (as well as -uṭaṉ; 798), but since Kota has only -o·ṛ, it is evident that Toda -wïṛ is from *-ōṭu. Since there is evidence for *oṭan as a free form (independent word or first member of a compound verb), the case ending must have begun as final member of a compound.

The 'all' forms in 718 include *ellā, which like the nouns ending in -ā, has the alternative form *ellāv(u). To these is added the totalizing particle *-m/*-um, yielding Tamil ellām 'whole, all', Malayalam ellām, ellāvum 'all'. Derived from *ellām, Toda has elom, which has been found with 1st plural inclusive and 2nd plural pronouns: om elom 'all of us', nïm elom 'all of you'. The form, especially as concerns the totalizing particle, has been discussed in Emeneau (1974b), 104-5 and n. 6.

The particle -ton (-θon, -don) 'only, just (that and nothing else)' (=Sans-

krit eva) corresponds in usage to Tamil -tāṉ; *ā>o is another instance of the rule.

In verb inflection, there are numerous examples.[5]

Many of the negative forms contain an element -o-. One of the 3rd person finite forms is -oθ. The verbal noun (adjective) of the negative paradigm ends in -o or -oθ. The adverbial form continuative ends in -oθ, adverbial past in -oc. Another adverbial form, very frequent in songs, but uncommon in prose, ends in -osy. The negative imperative 2nd singular is sometimes in songs -oṭ, otherwise with the declarative suffix -i, i.e. -oṭi; the plural is -oṭṣ(i). The subordinate negative form with a subject of any person (e.g. 'when he had not yet done, before he did') ends with the complex -onwïṛ; -n is a 3rd personal ending, -wïṛ is the sociative/instrumental case suffix given above. Subrahmanyam (1971), 383-5, §4.23 rightly reconstructs for the negative suffix PDr. *-ā-, as seen in Tamil 3rd personal finite -ātu, adjective -ā, adverbial -ātu. Kota has -a·d and -a·, and Toda has -oθ and -o, derived from *-ātu and *-ā (Subrahmanyam records Toda adverbial -ōθ, but this is certainly not what I heard). The remaining Toda forms as listed above need not be discussed here, but it seems that all contain PDr. *-ā-.

Historical explanation of the peculiarities of the personal inflections of the verb is much furthered by application of this rule. A partial statement of the personal inflections was presented earlier (Emeneau (1957), 43-4). A better focused and more exact statement is now possible (depending on my forthcoming Toda grammar).

In the 1st person most of the verb paradigms have endings: 1sg. -en, 1pl. exclusive -em, 1pl. inclusive -um, which are suffixed to various stems, viz. in the tenseless paradigm S^2 (=South Dravidian past stem), in the negative S^1 (=South Dravidian 'verb base' in the terminology of Subrahmanyam (1971)), in the present-future paradigm I S^2-p-, in the past paradigm I S^2-š-p-, in the dubitative S^1-š-p-, in a tenseless paradigm of the 'be' verbs various stems plus -f- (viz. o·-f-/e·-f- from o·x-, o·y- 'to become, be', o·ṛθ-f- from o·ṛθ- 'not to be in a place, not to exist', wïḷd-f- from wïḷd-/wïḍ- 'to be in a place, exist'). The voluntative has the formation: S^1-k- with the inflexional endings: 1sg. -in, 1pl. exclusive -im, 1pl. inclusive -u. The forms of the present-future and the past labelled as paradigm I are found when the declarative particle -i is added to the forms; this formation has assimilation of e in 1sg. and 1pl. exclusive to the particle -i, i.e. 1sg. -ini, 1pl. exclusive -imi (as do the corresponding forms of the dubitative and of the 'be' verb wïḷd-, but not the corresponding forms of the negative or of the -f- paradigm of the 'be' verbs o·x-, o·y- and o·ṛθ-). These paradigm I forms are also the verbal noun forms congruent with 1st personal subjects. Corresponding paradigm II forms occur: (1) when the verb form is followed by the interrogative particle -a·?, (2) when it is preceded somewhere in the sentence by an interrogative word, (3) when it is the first verb in an alternative question (followed by the same verb in a negative form, e.g. 'Did you do so-and-so or did you not?'), (4) optionally when it is final

verb in a quotation, immediately followed by the quotative verb ïn-, ïḏ- 'to say so-and-so'. The paradigm II forms are: lsg. -n, lpl. -m, and there is no distinction between exclusive and inclusive in the plural. They are suffixed in the present-future paradigm II to S^2, in the past paradigm II to S^2-š̆-. The voluntative negative ('I shouldn't do', 'do not let me do!') has these inflectional suffixes following S^1-š̆-.

The two sets of endings, then, are:

		I	II
1sg.		en-/-in	-n
1pl.	exclusive	-em/-im	-m
	inclusive	-um	

On the basis of the rules already set forth, we should suppose that the vowelless forms have lost a short vowel and the forms with short vowel have developed this from a pre-Toda long vowel; we should reconstruct for pre-Tota:

		I	II
1sg.		*-ēn	*-en
1pl.	exclusive	*-ēm	*-em
	inclusive	*-ō/ūm	*-o/um

For lpl. inclusive we cannot at this point in the reconstruction be sure of the vowel quality; we can only suggest that on the analogy of the height of the vowel in the other two persons, *ō and *o are more probable.

Examination of the comparative data finds in Kota: lsg. -e·n, lpl. exclusive -e·m, lpl. inclusive -o·m. This in itself is enough to enable us to choose for the pre-Toda lpl. inclusive *-ōm and *-om (rather than *-ūm and *-um). Commentators on the Tolkāppiyam give for Old Tamil lpl. exclusive -em/-ēm and lpl. inclusive -am/-ām. Reconstruction for Dravidian (Subrahmanyam (1971), 407-9) yields lpl. inclusive *-ām/*-am. This will not do as an origin for Kota -o·m, Toda -um, and their vowel *ō must for the time remain unexplained; the corresponding pronouns yield no clue: Kota a·m (both exclusive and inclusive), oblique inclusive am-; Toda om.

Nor is it possible at the moment to trace historically the split in usage between the Toda forms with vowels and without vowels, derived respectively from pre-Toda long-vowel forms and short-vowel forms. In Tamil the reference books find the difference between such forms in the presence or absence of a suffix between the stem and the inflectional ending, e.g. lsg. vant-aṉ-eṉ: vant-ēṉ. Although Tamil vantēṉ 'I came' corresponds exactly to the Toda tenseless paradigm lsg. poden, there is nothing in Toda corresponding to vantaṉeṉ and nothing in Tamil corresponding either in form or in usage (so far as I know) to Toda podn (lsg. present-future paradigm II).

The inflection of the 2nd personal singular shows similar alternation. It has -i in the subordinate paradigm with final suffix -k: S^2+inflectional endings +k. The schema for the paradigm is:

lsg.	S^2-en-g
lpl. exclusive	-em-g
lpl. inclusive	-u-k
2sg.	-i-k
2pl.	-š̆-ïk
3	-n-g

This paradigm's final -k is not yet explained historically, but the final -k of the Kota argumentative paradigm: S^2+inflectional endings+-k, is to be compared. The 1st personal endings are derived from *-ēn, *-ēm, *-ōm, as we have already seen. The 2sg. -i is to be compared with Kota -i· (in the argumentative paradigm 2sg. vadi·k 'you came, as I must remind you'). In most other paradigms the 2sg. ending is -y: present-future paradigm I, past paradigm I, tenseless paradigm, negative paradigm, voluntative. This is to be related to *-i, as reconstructed by Subrahmanyam (1971), 409f. from numerous languages. The present-future paradigm II has -ty and the past paradigm II (and the voluntative negative) -č, which is a simplification of *-š̆-ty, -š̆- being the past suffix in all forms in both paradigms I and II. This 2sg. -ty is to be related to the suffix -tt-/-t- which appears in Old Tamil texts in the 1st plural and the 2nd personal forms of a future tense paradigm, and in the 2sg. has the inflectional suffix -i (e.g. aḷitti 'you will pity'; Subrahmanyam (1971), 243-4, 313-16). This connexion can be made even though in Tamil the formation is based on the 'verb base' (i.e. our S^1) but in Toda on S^2 (the past tense stem of Tamil). The Toda present-future and past are both entirely based on the old past tense stem, including present-future paradigm I forms for 1st person and 2sg. which have a suffix -p- between the stem and the personal endings: S^2-p-(-en, -em, -um, -y). In these -p- corresponds to Tamil -pp- of the future tense of 'strong verbs', which follows the 'verb base', i.e. S^1 (Subrahmanyam (1971), 242-3, 304-7; e.g. koṭuppēṉ 'I will give').

The 3rd personal forms of the verb show great diversity. One of the forms is relevant here, viz. that of the present-future paradigm II, S^2-u, e.g. podu 'he/she/it comes, they come'. Kota has 3rd person present-future S^2-o·, e.g. vado·. Toda -u, then, represents pre-Toda *-ō.

The declarative particle found as last element in most finite verb forms that end non-interrogative sentences (including negative imperatives, but not, positive imperatives) is -i. Parallel to this is Kota -e·, the Tamil 'emphatic' suffix -ē, etc. The reconstructed form is *-ē.

In a number of the reconstructions already set forth, there are shifts of vowel quality accompanying the shortening of long vowels. One set shows a consistent type of shift:

	pre-Toda	Toda
'upon'	*mēl	-mil
lsg.	*-ēn	-en/-in
lpl. exclusive	*-ēm	-em/-im
declarative particle	*-ē	-i
lpl. inclusive	*-ōm	-um
3rd personal	*-ō	-u

The mid vowels, front *ē and back *ō, are raised, upon shortening, to the corresponding high vowels i and u. This statement holds for four of the six equivalences. For the remaining two, lsg. and lpl. exclusive, *ē>i only in the voluntative paradigm and in some of the other paradigms before the declarative particle -i; before the declarative particle, e remains in the negative paradigm (e.g. po·reni 'I will/do/did not come') and in the paradigm with -f- of two of the 'be' verbs, o·x-, o·y- and o·ṛθ- (i.e. o·feni and o·ṛθfeni). How to reconcile these discrepancies is not yet clear.

There are several other instances of shortening of long vowels, but the details of development are complicated and in part obscure. We need only mention that such a development is seen in the desiderative formation S^1-s-e- which is inflected as equivalent to an S^2 stem (e.g. pašepini 'I desire to come'); e is a development of o·y-, the S^2 stem of o·x- 'to become, be'. The additive particle -m is derived from *-um with loss of the short vowel; its alloforms -em and -um have shortenings of long vowels, but the origins are too problematical to be stated here.

One more development may be stated. Equational predications of subject and predicate nouns in the 3rd person often have, in constructions where a paradigm I verb form would occur, a suffix -ïy added to the predicate noun. To this is added the declarative particle -i, yielding -ïyi which by a phonological rule simplifies to -ïi. Also, when the predicate noun is final in a quotation and followed by ïn-, ïḏ- 'to say so-and-so', it has either -u (like -u in the present-future paradigm II) or optionally -ïy or -ïyi. Exx. i o·ɬ, pilyxo·ɽnïyi. 'This Toda is a sorcerer' (pilyxo·ɽn 'sorcerer'); 'töwïy' ïḏ, σ·ɬa·m öštyt 'that of which the Todas say, "It is a god" ' (literally, that of which they tell [öštyt], saying [ïḏ], 'It is [-ïy] a god [töw]'). This ending -ïy(i) is also found as 3rd person in the negative paradigm I; e.g. po·rïyi 'he/she/they does/do/did not come'. Attempts to find an etymological connexion for the suffix -ïy have not yielded very satisfactory results. However, if the shortening rule is invoked, Tamil -īi or -īiya may be what we are looking for. Phonologically, this may be unexceptionable, since in numerous etymologies *i>Toda ï; i.e. first there would be shortening of *ī>*i, then *i>ï. Whether i in ïi would yield Toda y, or whether iy in the adjective form must be invoked to yield Toda y, is still a problem, as is the question whether *i would be expected to yield Toda ï or i, since the conditioning for the Toda divergent developments of *i cannot yet be stated with accuracy. On the other hand, there is

certainly a semantic gap between the Tamil formations and the Toda ones. In Old Tamil (Subrahmanyam (1971), 110f.) -ii is found in past non-finite verb forms, and followed by the adjective suffix -a (i.e. -iiy-a); there are also past tense forms containing -ii- (e.g. viṟ-ii-ṉ-āṉ 'he fell'). In Toda -ïy is a 3rd personal inflection added to nouns and a 3rd personal inflection in the negative paradigm of verbs. There is no overlap; at best, the verbal adjective form in Tamil might be thought to be somehow related to (the origin of?) the Toda noun predicative inflection—but to connect this Toda usage with that in the negative is difficult in itself.

For some words there was uncertainty or vacillation in recording at dictation the length of vowels in non-initial syllables. These words were most often compounds (noun plus noun constructions). The uncertainty, which was (I am sure) the informants' as well as the recorder's, arose from the slowness of utterance in the artificial conditions of dictation. This resulted in recording forms with vowel lengths belonging to levels prior to and following the shortening rule. One notable example was the form taken by twï· 'corral, pen' (2905) in compounds. What the pre-Toda form was is uncertain, since Tamil has both toṟu and tōṟ, Kota has to·y, and Toda has tu· as first member in the compound tu· fo·s̄ 'entrance of pen'. But whether the PDr. form of the Toda word had a long or a short vowel is probably irrelevant. Pre-Toda can, I think, be assumed to have had a long vowel, on the evidence of tu· fo·s̄ and of twï· itself. As second member of compounds the word was recorded by myself with u· or u, by Sakthivel 1976 with u, and by Rivers 1906 with û, u, and o (which suggest u or u·). 'Stone wall, stone pen', which is a compound of kas̄ 'stone' and twï·, was recorded by myself in texts as kaṭwï·, kaṭu·, or kaṭ̄u, and the plural as kaṭua·m or kaṭu·a·m (this in a sentence immediately after one with kaṭwï·); Sakthivel has kaṭu, Rivers kâtû. Numerous proper names of buffalo pens, hamlets named after pens, and men named after pens or hamlets, show similar vacillation. Most of them, but not all, were recorded by myself with wï·. Rivers used û, u, or o. A hamlet of the Ka·s̄ clan was always recorded by myself as Küšu (1974a, 53, K24), and by Rivēr̄s as Kuzhû; my invariable recording, combined with River's spelling, suggests that in all the names fast speech has -u. Two other hamlets were recorded by me with -wï·, by Rivers with û or u: Kaṣwï· (ibid., 64, K81; Rivers: Kuzhû, Kushu) and Moẓwï· (ibid., 74, K144; Rivers: Madsû); the latter is also a man's name (ibid., 76, name 651). Of men's names I recorded Pïswï· or Pïsu (ibid., 72, name 514; Rivers Pursu; Prince Peter's spelling, 1963, table 22, Purshwo, suggests that he heard a diphthongal pronunciation). Other names (to be found in Emeneau (1974a)) are: Po·s̄wï·, Ka·s̄wï·, Ko·nḏwï·, Pïnaṯwï·, Na·s̄wï· (Prince Peter (1963), table 24: Narjueh).

Some prima facie exceptions to these rules are regular according to other rules.

The word for 'navel', piku· (3652) has an unshortened long vowel which

represents *uṟ as attested by Kannaḍa pokkuṟ, porkuṟ, and by Kolami-Naikṛi bogur; Toda i, rather than u, is still unexplained (cf. Kota puku·).

Numerous disyllabic words end in -v̆l, the short vowel being in most instance ï, in a few instances, a, o, or i. Most of these words have etyma of similar structure, i.e. with second (or final) syllables containing a short vowel followed by l. In Toda l does not occur immediately following a consonant, i.e. a statement of consonant clusters will not include Cl, with four exceptions, viz. arl, erl, i·gl, koyl (for which see *DED*). The words ending in -v̆l have been treated by Subrahmanyam (1976), 106 n. 8, 113. He has come to the conclusion that they are all loanwords, for several reasons. Perhaps the most cogent is that it is expected that in words of this structure the short vowel should be deleted and *l should become Toda s̄. This development is seen in: köks ïn- 'to make noise of laughter' (1608; Tamil kekkal-, Telugu geggalu); koḍds̄ 'wasp' (938), with which cf. Malayalam kaṭannal, kaṭunnal, i.e. *kaṭa/untal̄; and paθs̄ 'large, broad-mouthed clay pot' (3230), cf. Tamil patalai. In the third of these instances all the phonetic developments seem to be regular (Subrahmanyam (1976), 95 gives this as an example of the *a>a rule before final *-ay); in regard to the second, *ṭ should normally>ṛ, but as first member of consonant clusters it shows a split development to ṛ and ḍ, and we do not yet have the rule for the split. Both of the last two words are still a little doubtful as between genetic inheritance and borrowing, since we must note moreover that the kind of pot denoted by paθs̄ may be a borrowed article (no Kota etymon was recorded, unfortunately).

The development of *l to s̄ is seen in the locative case. Reconstruction of the locative (Shanmugam (1971), 381-3), as regards the origin of the Toda suffix, has not so far been quite convincing. It has been assumed that Tamil-Malayalam -il represents the form (presumably SDr.) *-il from which Kota -l, Toda -s̄ (<*-l), and Koḍagu -lï developed. But these last three languages have no trace of the vowel i, and for them we should reconstruct the suffix as *-l. Tamil-Malayalam -il with the vowel i is not in fact paralleled in any other language. To find evidence for the form in the parallel *-in, which is Tamil, Naiki (Chanda), and Gadba, seems unwarranted; i.e. -il and *-in should be dealt with separately at the first level of reconstruction. It seems to follow that, whatever the ultimate relationship may be (and I still find it uncertain) of Tamil-Malayalam -il, Kota-Toda-Koḍagu *-l(ï), and Kannaḍa -al, -alli, Parji -el (<*-al), -k-el, Malayalam -kal, we must derive Kota-Toda-Koḍagu *-l(ï), not from *-il (or *-al), but from the consonant alone, *l(ï).

We have, then, good evidence for the development of *l to s̄, and in some of the instances for loss of a preceding short vowel. The retention of -v̆l is consequently unmotivated by any conditioning rule. Many of the instances are related to Tamil and Kannaḍa noun derivatives from verbal bases with the suffix *-al (Subrahmanyam (1971), 436-7; cf. also the Kota verbal noun with suffix -l, often in the dative, e.g. ka·vlk 'to watch', analysed in Emeneau (1944), 31, word 13). In attempting historical analysis of the Toda desiderative

formation S^1-s̄-e-, it was found that -e-, which is inflected as an S^2 stem, is derived from the verb o·x-, o·y- 'to become, be', and that what precedes, S^1-s̄, is a verbal noun whose suffix -s̄ represents exactly the verbal noun suffix *-ā̆l. This, then, is the correct Todā development, and -ïl is a borrowing in such verbal nouns as ko·fïl 'act of watching' (1192; Tamil-Malayalam-Kannaḍa kāval, Kota ka·vl); cf. also ku·sïl, kwïẓïl, mïxïl, o·fïl, taḍgïl. Other noun-deriving suffixes of the same or similar form are represented in the same way in Toda; e.g. ofïl 'puffed rice' (1976; Tamil aval 'rice obtained from fried paddy by pestling it', Malayalam avil, Kannaḍa aval; the article is a recent introduction to the Todas); cf. also kubïl, köḍθïl, kwaṛcïl. Suffixal material of less transparent nature is represented in the same way; e.g. magïl 'slope of hill' (3861; borrowing from Kannaḍa maggal, maggil, maggul 'side', which is <*marg- <*maruṅk- as in Tamil maruṅkul); icïl 'pollution of birth, death, or leavings of food' (666; Tamil eccil 'pollution of bodily secretions, including saliva and leavings of food', Malayalam eccil, Kota ecl); kwïθïl 'stammerer' (1418; Kannaḍa kodala); wïkïl 'family' (782; Tamil okkal); kwïḍbïl 'family' (1379) has -ïl from wïkïl added to kwïḍb *id.*, which is <Tamil kuṭumpam, Kannaḍa kuṭumba <Sanskrit kuṭumba-. petïl(es̄) 'betel (leaf)' (4539), along with the article it denotes and the custom of chewing it, is a borrowing, probably from Tamil veṛṛ-ilai, with vernacular Tamil t instead of the expected Toda ṭ (for *ṛṛ). paθïl 'retaliation; instead of, in place of' is of Arabic origin, borrowed through Hindi and (possibly) Kannaḍa badal (contrast paθs̄ given above). Other vowels occur in: aṇil 'squirrel' (1911; Tamil-Malayalam aṇil, Kannaḍa aṇal, aṇil; the vowel i is that of the language from which the word was borrowed); keẓal 'termite' (1296; Kannaḍa gejjalu; the vowel a is that of the Kannaḍa word); kaštal, katal 'darkness' (in the song language; 1073b; Kannaḍa kartale, kattale; the vowel a is that of the Kannaḍa words); kopol 'boat' (1022; Tamil kappal; though normally *a>Toda a before l, Subrahmanyam (1976), 93, 95, the vowel here is assimilated to o of the first syllable; boats are not native in the Nilgiris); poxol 'daytime, day' (3151; Tamil-Malayalam pakal, Kannaḍa pagal; the vowel of the second syllable is assimilated to that of the first); poxol 'entrance', which occurs only in a song-unit: o kwa·ṭ foxol 'entrance of a bungalow', looks as if it were related to Kannaḍa bāgil, bāgal (4386) with shortening of the vowel of the first syllable (Toda prose po·s̄ is derived from a form like Tamil vāyil, vāyal; cf. Kota va·l). Of these forms, four, viz. the two homophones poxol, and wïkïl and kwïḍbïl, were noted in Emeneau (1971), p. xv, as occurring in song-units which have four syllables instead of the regular three, e.g. poxol wïḍ i·ṣk, poxole i·ɬ; o kwa·ṭ foxol; mu·ṛ si·my wïkïl; pot o·ɬ xwïḍbïlkm (pot o·ɬ xwiḍbk also occurs). These forms then are metrically equivalent to monosyllables, as if *poxl, *wïkl, *kwïḍbl. Is it possible that at some time prior to the present they were monosyllables with consonant clusters ending in l, and that a vowel (echo-vowel?) was inserted not long before the present? If that were so for these four words, would it be so also for all the

others which now end in -ïl? But, whatever the solution of these problems, the relevant point in the present connexion is that the short vowels in these non-initial syllables are systematically of a different nature from those that result from the shortening of long vowels.

Examination of the syllabic structure of words also yields similar statements about the distribution of ḷ and r. There are, without exception, no occurrences of ḷ and r as finals in consonant clusters; when such would be expected, ï or rarely u appears before ḷ or r. The normal developments in this context are: *ḷ>ɻ̆, *r>š̆.

Subrahmanyam (1976), 114-18 deals with *ḷ and concludes that the few words ending in -v̆ḷ are borrowings, viz. kubïḷ, muxuḷ, tïgïḷ. The last, the word for 'moon' (2626) gives one pause, but it is possible that nesof originally, as in some languages in *DED* 3113, meant 'moonlight, moon' and that the latter meaning was displaced by a borrowed word. We might add tobïḷ 'Tamil language' (2509), a recent borrowing from a vernacular Tamil form with ḷ (<ṛ).

Subrahmanyam (1977) deals with r. An instance of *r>š after t is nötš 'blood' (3106) in a song-unit: nötïš xaṛ 'juice which is blood'; it is said to be from Badaga netru, for which cf. Kannaḍa nettar, Kota netr (the Toda prose word for 'blood' is 4370 po·x, with a query), but it is not clear whether this song word is borrowed or an archaism, *r>š in the latter case being correct.

A form that was noted earlier (Emeneau (1957), 59) is wïsoɻ̆yš̆, which may alternate with wïsoɻ̆y ïr 'buffalo of the wïsoɻ̆y dairy', i.e. with loss of ï and r>š̆; this is not attested in texts (nor in Rivers 1906), but elicited sentences were: ay ïr wïsoɻ̆yš̆ïyi. 'That buffalo is a wïsoɻ̆y buffalo'; ay wïsoɻ̆yš̆ faṭypini. 'I'll catch that wisoɻ̆y buffalo'.

The 2nd plural verb inflection has in most paradigms a suffix -š̆. This is preceded in the present-future paradigms I and II by -t-, whose relationship to -tt-/-t- in a future tense in Old Tamil has been stated above in connexion with the 2nd singular verb inflection. The suffix -š̆ is to be connected with the reconstructed *-īr, but it does not seem plausible that *ī can be involved. *-ir would be better, through an intermediate stage *-yr, with y producing the palatal position of the sibilant, and -ir is the form that Old Tamil has in the future with -tt-/-t-, as well as in the past when the suffix -aṉ- precedes (e.g. vantaṉir); cf. also Kannaḍa -ir, Koḍagu -ira.

Once development of *-Cv̆r>-Cš̆ has been established, the instances of Toda -v̆r can be suspected of being borrowings, and kïθïr 'horse' (1423) and efïr 'bean' (224) are clearly so since the articles denoted are not native to the Nilgiris. usïr 'life' (554; Tamil ucir, Malayalam uśir, Kannaḍa usir, usur, Kota ucr) has a synonym ü·r, which is related to Tamil-Malayalam uyir, and has the regular development of *uyv̆-, while s in such a context, not being final in S^2 of a verb, is probably a mark of borrowing. In öθïr 'place or position facing, openly, (to lie) on one's back' (680; Tamil-Malayalam etir, etc.),

there is no indication of borrowing except the syllabic structure. Two other words, uθur 'gums' (521) and e·mïr 'wintergreen' (303), have in one case a doubtful etymology, in the other obscure phonetic equivalences (Kota a·mi·r).

Again, as in the case of words ending in -v̆l, these occurrences of -v̆ḷ and -v̆r have no relevance for the rule on shortening of long vowels in non-initial syllables.

The previous treatment does not exhaust native Dravidian material which might bear on the operation of the rules, but we cannot be entirely exhaustive in this paper. We should, however, notice that borrowed material, much of it obviously borrowed since it comes from or through Indo-Aryan, is somewhat inconsistent in treatment. There are instances of a long vowel retained in a non-initial syllable: oḍyo·ḷm 'a sign, token' occurs in a text of non-Toda origin and is borrowed from Tamil aṭaiyāḷam (79); sumo·r 'approximation to, about' is a commonly used word, whose proximate source is colloquial Tamil cumār, but whose ultimate derivation is from Persian šumār ('DEN' *DBIA* S11). There are instances of a short vowel retained in a non-initial syllable; e.g. uturm 'order (i.e. reply handed down in answer to a petition to government official)'<Tamil uttaram<Sanskrit uttara- 'reply' (*DBIA* 45). There are instances of lengthening of a short vowel in a non-initial syllable; e.g. müdu·rm 'official's ring' (*DBIA* 305), cf. Kannaḍa modira 'ring' <Sanskrit mudrā- 'ring, seal-ring', but Kota mudu·rm, like Toda with lengthening in second syllable. Finally, the rule for shortening of a long vowel in a non-initial syllable sometimes works, as in aboym 'danger'<Tamil apāyam<Sanskrit apāya-. Sometimes, since it is not always clear from which intermediary language the borrowing took place, one cannot be sure where in the chain of transmission to place shortening; e.g. kuposm 'coat' (*DBIA* 106) is ultimately<Sanskrit kūrpāsa- through Prakrit kuppāsa-; Tamil kuppācam and Kota kupa·cm have the long vowel, but Kannaḍa kuppasa, kub(b)asa have a shortened vowel. In some words, not completely naturalized in Toda usage, there is still vacillation of quantity: müdu·rm 'ring' was also recorded as müdurm, although the former pronunciation seemed to be favoured.

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NOTES

1. This paper is offered to my colleague and friend [T. Burrow] in admiration for his scholarship and in gratitude for much. I must thank Dr. George L. Hart III for instruction in matters of Tamil grammar.

2. Such numbers as this refer to entries in *DED*, *DEDS*, and 'DEN', without distinguishing between the three publications, since all of them use the same number system. It must be understood that reference to Kannaḍa items usually conceals the assumption that it is the Badaga dialect of Kannaḍa, spoken in the Nilgiris, that is involved; Badaga material would be quoted if it were available.

3. Subrahmanyam (1976), 113, n. 10 notes this rules for these three words.

4. Tamil kaṭā, kaṭavu 'male of sheep or goat, he-buffalo', Malayalam kaṭā, kiṭā, kiṭāvu 'male of cattle, child' (943) is not represented in the Nilgiris languages unless Kota ke·v 'calf of buffalo or cow, under one year' (in *DED* with query) is derived from *kiṭāvu (>*kṛe·v >ke·v). Kota ke·n, in: ke·n im, ke·no·ṛ im 'buffalo with its calf', ke·n a·v, ke·no·ṛ a·v 'cow with its calf', may be from *kiṭā with the same developments.

5. Much of what follows is set forth in greater detail and with more exemplification in my forthcoming grammar of Toda.

Chapter XV

LINGUISTIC ARCHAISMS IN TODA SONGS*

Several characteristics of Toda song language differentiate it from that of prose. One ingredient is archaism. This is demonstrated for the tenseless verb paradigm and for three types of verbal adjective formations, by comparison with other Dravidian languages. Statistical examination makes it plausible that several numeral and descriptive adjectives are used more freely in song than in prose. Archaic lexical items include words for 'sun', 'gold', 'blood', and 'darkness', as demonstrated by philological examination of song and prose usage and etymological treatment. Some remarks on the use of comparatively recent lexical borrowings from Badaga, Tamil, and even English in the songs are included.

From the time in 1935 when I took down at dictation my first Toda song, it was clear that the language differed from that of everyday speech or of narrative prose. Description of the differences at an elementary level was easy from the first; e.g., it was possible to write out verbal paradigms for the two kinds of utterance. To go further, however, was a much longer process. At the very beginning it was clear that nothing of great use could be done without recording large corpora of the two genres. I was inveigled, by my own enthusiasm and that of my informants, into taking down unwieldy, almost unmanageable, masses of texts of both kinds. Many years and many preoccupations have intervened before I have been able to find time enough to do the laborious task of putting all in order and making it possible to ask questions and provide some answers about the nature of the song language.

To say that it is different is hardly enough, and merely to list and tabulate descriptive differences answers no questions that one would find of deep interest. Certainly this procedure deals only with surface phenomena, and I cannot see that the deeper structures of the two language varieties are very different from one another. A historical approach promises, and indeed yields, much more.

What sort of an historical approach? Again from the beginning of my study of the data, it seemed that everyone whom I mentioned it to, expected me to find 'archaisms' in the song language. There seemed to be a sort of taken-for-granted consensus that archaism is a 'universal' of the language of poetry, or perhaps of oral poetry. But I could not, and still cannot, find that there is any definition of the corpora of which this 'universal' is predicated or of the ways in which archaism is manifested. There is certainly a way

South Asian Language Analysis (*SALA*), 1.31-45 (1979).

in which one is justified in saying that the language of the Homeric poems contains archaisms, and much scholarship has been concentrated on this matter. Bowra in his work on *Heroic Poetry* (1952, 388-9) verged on generalization when he said, 'Most heroic poems have behind them a long tradition, which provides . . . the main elements of the vocabulary which the poets use . . . [T]he language used in most heroic poetry. In very few countries is this the common speech of men . . . Just as the Russian *byliny* use many archaic words and prefixes which have no real function . . .' He then slides off into characterization of epic language as 'Kunstsprache', language 'which can never have been spoken by any man', of which the Homeric language is a 'classic case'. He lists a number of grammatical features of the Homeric language which illustrate this, and then says that 'the many synonyms and the survival of *archaic* [my emphasis] forms all point to an elaborately constructed language which was meant for poetry and nothing else'. He bears down hard on the 'artificiality' and Kunstsprache-nature of epic language, but says nothing more that directly bears on archaism.

In 1956 I ventured to approach the question in a lecture which was intended as an *oeuvre de vulgarisation* (Emeneau 1958a, 114-5). I paraphrased Bowra, said that the Toda song language is different from that of everyday use, and that 'in a few points . . . it has been possible to identify archaisms of morphology or of vocabulary', without however specifying what they were. I owned too that it was not yet possible to say whether the verb morphology showed archaic traits or merely contrived differences.

Since then, it seems that no one has been able to make more satisfactory general statements about the matter of archaisms in poetry or oral poetry. Certainly so A.B. Lord, a master of the nature of oral poetry, informs me. I cannot venture into the general field, since in fact so little has been done to supply us with accounts of the matter for a number of oral poetries. I must content myself with supplying an account, in detail, for the one oral poetry that I know best.

Fortunately the historical approach is possible now, as it really was not forty years, or even twenty years, ago. We now know much more about the Dravidian language family than we did then—in that many more languages of the family are in the record, a dictionary of etymologies makes phonological and lexical comparative studies easier than they were in the 30s or the 50s, and the expertise of a number of Indian scholars has provided us with the studies and handbooks that we need for comparative morphological studies. In what follows it will be evident how much I have relied on P.S. Subrahmanyam's *Dravidian Verb Morphology* (*a comparative study*) of 1971. S.V. Shanmugam's *Dravidian Nouns* (*a comparative study*), also of 1971, would have been equally useful, except for the fact that in noun morphology the two varieties of Toda show practically no difference, certainly none that is relevant in the present connection.

To proceed then directly to verb morphology, where my interest lies chiefly [in this paper].

Much of the verb morphology of the songs is only superficially different from that of ordinary language. E.g., the verse *TS* 106.65

o·ɾ xu·ṛyad podïp o·ṯm ko·ṇeni ïḏïtïn/
kwï·ṛ xu·ṛyad naṛθïp o·ṯm ko·ṇeni ïḏïtïn//
'He says: "I do not see any man at all who will come, joining me on the way".
He says: "I do not see any man at all who will walk, joining me on the path".'

The non-finite ku·ṛy 'joining' is alike in both varieties, here with a particle -ad added that is only found in the song language, is not part of the verb morphology, being found added to nouns also, and for which no historical origin has yet been found. The negative verb ko·ṇeni 'I do not see' is found in prose and song. The future verbal nouns podïp 'who will come' and naṛθïp 'who will walk' differ from the prose forms podp and naṛθp only in the insertion of the vowel ï to establish the correct metrical form. The final verb ïḏïtïn 'he says' has a metrical insertion between ḏ and t and a final verb particle -ïn which is part of the song language, but for which no historical origin has yet been found; in prose the form would be the present-future ïḏti, i.e. ïḏt with a final verbal particle -i, which is also found in song (as in ko·ṇeni; even ïḏïti is expected as a rare song form, equivalent to ïḏïtïn, but by accident has not been found). Much of the difference between the verb forms of the songs and of prose is of this superficial nature, and can be omitted here as not relevant to our present interest.

One important difference is the following. In prose there are two tense paradigms of a somewhat basic nature, the present-future (or non-past) and the past. They are formulaically:

present-future | S^2 | -ϕ- | ⟶2pl. -tš̆, 3 -t
S^2 | ⇢ -p- { 1sg. -en, 1pl. excl. -em, 1pl. incl. -um, 2sg. -y
past | S^2 | -š̆- | ⟶2pl. -š̆ (š̆š̆>š̆), 3 -t (š̆t>ð)

S^2 is formed from S^1, the basic verbal stem, by a set of suffixes which in Dravidian in general form the past stem.

Forms of these two paradigms are found in the song language, but rather infrequently, their place being taken often by forms of various aspects, or by forms of a tenseless paradigm. Its formula is:

verbs in which S^2 is S^1-y-: S^1-n- { personal suffixes -en, -em, -um, -y-, -š̆
verbs in which S^2 is otherwise formed: S^2- { (3rd person not found)

Two irregular verbs have: pï·-n- from pï·x-, pi·- 'to go', and o·-n- from o·x-, o·y- 'to become, be', i.e. S^1 (minus x) -n-. Song 25 has a long series of examples, all referring to the past: uṭṇeni 'I was born' (verb uṭ-, uṭy-), pe·deni

id. (verb peˑrf-, peˑd-), oˑneni 'I became', pïˑneni 'I went', teṟθeni 'I opened' (verb teṟ-, teṟθ-), kotneni 'I lit' (verb kot-, koty-), poḍθeni 'I became priest of the tiˑ dairy' (verb poḍ-, poḍθ-), oˑḍṇeni 'I acted powerfully' (verb oˑḍ-, oˑḍy-), poṇθneni 'I spoke' (verb poṇθ-, poṇθy-); and there are many other instances. Of the few passages with clear non-past reference one is song 35, vss. 32-8, where a buffalo on leaving Toˑṟoˑṛ mund says to it and to various localities there: pïˑneney nwïˑṭyïθ ïr 'I am going (pïˑnen). See me off!'; another is song 162a, vs. 23, poṇm goṛṇ darm kwïṛtum ïḏt nwïˑṭum öḍ 'Let us see about what they said: "We will give (kwïṛtum) the charity of a loan of money"! Rise up!'. A few prose passages use forms of this tenseless paradigm, but all have exceptional contexts, in that they are solemn promises of gods in myths or a formal decision given by a man in the assembly. The man (133.15) uses the form öštnen 'I say/decide' (verb öšt-, östy-). The god Öˑn (2.10-11, 18) uses pocen 'I ordain' (verb poy-, poc-) and oˑknen 'I planted' (verb oˑk-, oˑky-). The goddess Töˑkisy (21.27, 33) in creating the Nilgiris communities and their means of livelihood uses the form toden 'I have given to you' (verb toˑr-, tod- 'to give to 1st or 2nd person'). One informant, not so good in general as my chief informants, in a variant of one of these myths, used the prose todšpini 'I gave to you' (4.10) instead of toden.

The usual prose present-future and past paradigms are Toda innovations, containing to be sure some features of remarkable antiquity (e.g., the suffix -š- in the past paradigm, which is taken to be a PDr. past suffix).[1] The tenseless paradigm for those verbs that have S^2 plus personal suffixes, is by no means an innovation. It is rather an archaism and corresponds exactly to the Kota present-future, whose formula is S^2 plus personal suffixes, and the usual Tamil past paradigm, examples of which in the 1st singular are vantēṉ and kaṇṭēṉ, to which Toda poden and koḍen correspond sound for sound. We may note too that the Toda irregular forms pïˑnen 'I go/went' from pïˑx-, piˑ-, and oˑnen 'I become/became' from oˑx-, oˑy-, correspond exactly to Tamil pōṉēṉ and āṉēṉ. We need not go into details about Koḍagu and Kannaḍa which have related paradigms. The relevant matter is that the tenseless paradigm of this class of Toda verbs, i.e. those that do not have the suffix -y- in S^2 and the irregular verbs pïˑx- and oˑx-, can be referred exactly to the SDr. reconstruction. This is an archaism in the song language, not found in the prose language except in two contexts, the language of the gods and of solemn decision in the assembly, where archaism is beautifully in place.

In the other section of the verbs, those that have -y- to form the stem S^2, the formation of the tenseless paradigm with S^1-n- offers historical difficulty. These verbs in Tamil have the compound suffix -i-ṉ-, of which -i- appears as -y- in the usual Toda S^2 for these verbs. Tamil -iṉ- should not be represented by Toda -n-. Old Tamil has, alternating with such forms as vantēṉ (S^2-personal suffix), forms with what the grammarians call the cāriyai -aṉ-, the formation being: S^2-aṉ-(personal suffixes with short vowel), e.g. vantaṉeṉ. This formation, however, is only found as an optional alternative for verbs which do not

have -iṉ- in the past tense. Therefore, this suffix -aṉ- cannot be related to the Toda -n- that we are concerned with. Is it possible that only the -n- of the Tamil compound suffix -i-ṉ- is in point in the Toda formation? Subrahmanyam (1971, 226-7) finds that a past tense suffix *-n- is to be identified in Tamil and Old Malayalam, Telugu (past adjectives and negative adjectives), and Parji (in a very few verbs). If this *-n- is to be identified in this paradigm of this class of Toda verbs, the paradigm would be even more 'archaic' than that of the other class.

The verbal noun/adjective formations which are so characteristic of Dravidian proliferate in Toda, and in the song language there is considerable archaism in these formations.

The basic Dravidian predication type is SOV, with the possibility of various other case forms also appearing before V. V appears in several kinds of morphological formation: finite, i.e. ending a sentence; non-finite, by means of which several SOV's are embedded successively in the same sentence, preceding the final V in finite form; and verbal noun/adjective forms, the SOV predication being then embedded within another SOV predication, either as a noun in some case form or in some attributive relation to a following noun (this statement about verbal noun/adjective forms is too simple, but suffices in this connection).

Verbal noun/adjective formations found in both prose and song are: S^2-t, time contemporary with that of the main predication; S^2-p, future or habituative; S^2-θ, time past with reference to that of the main predication; S^2-foy, time past with reference to that of the main predication; S^1-oθ/S^1-o, negative.

Of the two with past reference, S^2-θ and S^2-foy, the former is much more frequently used in song and the latter almost, but not entirely, only in prose. The former is historically related to Tamil 3sg. neuter past forms with inflectional suffix -atu (e.g., vantatu: Toda podθ), and was originally a verbal noun in concord with a 3sg. neuter subject. The other Toda form with -foy is an innovation in Toda, related to the Kota past verbal noun/adjectives S^2-vd (e.g., vadvd); whatever the origin of Kota -v-, Toda -f-, we have here clearly a Nilgiris innovation. Toda has further innovated by adding -oy, which (I have thought) is derived from *āya, i.e. verbal adjective formed from the past stem of *ā-, *ā-y- to become, be' with adjective suffix *-a (cf. e.g., Tamil vanta 'which came'); if in Tamil this verb has normally the past verbal adjective āna, āya does occur in the early (but not the Sangam) literature, especially in the Nālaṭiyār (which may be as late as 7th century A.D., or may be a little earlier). The innovatory form with -foy is the prose form; that the inherited form with -θ is almost the only past form in song is, then, an archaism in the song language.

Another verbal adjective is very common in song and is found in prose almost only in a few contexts where the use may be in some sense traditional. The form is S^2 without further suffix. It is to be related to the Tamil forma-

tion: past stem (= Toda S^2) plus -a, the final short vowel disappearing in Toda by the normal loss of a short vowel in a non-initial syllable. In Tamil the time reference is past, in Toda the form is tenseless. A few examples from the songs are:

pi·s fürs īṛṇ 'the place (īṛṇ) where the sun (pi·s) sets' (pürs; verb püry-, pürs- 'to disappear from sight, [heavenly body] sets;);

en boc af 'mother (af) who bore (poc) me (enn)' (verb poy-, poc- 'to bear, beget');

wa·ṛ θüṯy a·s 'Toda house', lit. house (a·s) on which they wind (tüṯy) the bamboo (wa·ṛ) (verb tüṯ-. tüṯy-, 'to wind [transitive]'); the reference is to the thatching technique.

One of the four place names analyzable in these terms is: kas waṛθ fem 'the hill (pem) where the stone (kas) broke' (waṛθ; verb waṛ-, waṛθ-'to be broken in pieces').

The name (somewhat obscure) of the day when the second funeral, performed over the relics, is held is: maṛf o·y no·ɬ 'the day (no·ɬ) when he becomes (o·y) unseen/non-existent/forgotten/disappeared/vanished (maṛf)'; the reference is to the dead person's stopping after the first funeral at a place on the road to the world of the dead and staying, cooking for himself, until the second funeral, after which he proceeds to the world of the dead.

The goddess Tö·kisy in one passage (21.27) uses the archaic verb form toden (discussed above) and then says: ni·, ïθ ïṛtk ïθ, tïd xwïḍ fï·x. 'Go on continually eating, sitting (second ïθ) in the place (ïṛtk) where you sit (first ïθ)!' (verb ïr-, ïθ- 'to sit, live').

One other prose passage contains a relevant form (139.20): i wïse·n, i malkwa·ṭṇ goḍ ïṛts ofody, ï gïs xwïju (ï)dti. 'In all the places where this Wïse·n saw (koḍ) this Malkwa·ṭ, he ridiculed him like this—so they say' (verb ko·ṇ-, koḍ- 'to see').

In spite of this last passage, with koḍ instead of an expected koḍt, we may interpret the S^2 verbal adjective as song (or solemn or traditional) usage, and, considering its relation to the Tamil form, as archaic.

Another verbal adjective, with a suffix -n, occurs frequently in songs, and otherwise in several prayer phrases, three place names, and two obscure words. The formation is:

verbs in which S^2- is S^1-y-:	S^1-n
verbs in which S^2- is otherwise formed:	S^2-n.

A few examples from the songs are:

pi·s uštn ïṛṇ 'the place (ïṛṇ) where the sun (pi·s) rises' (uštn; verb ušt-, ušty- 'to come into sight, [heavenly body] rises'); this song-unit is paired with pi·s fürs ïṛṇ given above;

pi·rfoθn o·ɨ̣, e·š̌ öḍθn o·ɨ̣ 'the people (o·ɨ̣) who love (pi·r̲foθn) us, the people who hate us' (verbs pi·r̲for-, pi·r̲foθ- 'to love'; e·š̌ öḍ-, öḍθ- 'aversion/hatred rises').

A prayer phrase is: moy ïrk, mïnt ïṭṇ döw, ku·x ïrk, kwï·ṛ xu·ṭṇ döw 'god who put (ïṭṇ) heat into the barren buffalo, god who joined (ku·ṭṇ) the horns of the buffalo with horns curving under the chin' (verbs ïḍ-, iṭ- 'to put'; ku·ṭ-, ku·ṭy- 'to join [transitive]').

A place name is: kojxo·cnbïɨ̣ 'the thicket-path (pïɨ̣) where they cook (ko·cn) rice gruel (koj)' (verb ko·c-, ko·č- 'to heat, boil', the S^2 stem being from ko·c-y-).

The two obscure words are:

to·n 'dead, the late' as in: to·n pe·ṇis 'the late Pe·ṇïs'; this form is probably related to the verbs in DED 2495 (*tav̄-, *tāv̄- 'to die'), for which there is no Toda verb attested;

po·n in the formula used in referring to a dead man without naming him: (name of mund where he died) ablative+po·n 'he who went from . . .' (e.g., kï·wïṭṣṇ bo·n 'he who died at Kï·wïṛ'); po·n from pï·x-, pi·- 'to go' has an unexpected allomorph po·-.

The prehistory of this form with -n is still uncertain. However, verbal adjectives with -n of various origins are discussed by Subrahmanyam (1971, 233-5, 249, 321-4, 328-9) and perhaps we might refer especially to Old Tamil forms 3pl. S^1-n-ar 'those who do'. Whatever the origin of the Toda forms, they are only used in song and some traditional, and even obscure, prose contexts, and are archaic.

Of the other form classes of the language, the adjective class provides some data of the kind that we are looking for. This class is difficult of definition and sometimes of identification in the Dravidian family. However, a minimum definition would be that, unlike nouns (including pronouns and numerals), the adjectives do not have case forms or occur in case constructions; they occur only as attributes to nouns, or in the case of the descriptive adjectives also as predicates in equational predications, both of which functions are served by nouns themselves. This is a negative criterion, and it is at times difficult, even with the aid of a large corpus of material, to be sure that lack of occurrence in case constructions is anything but accidental.

However, one can be sure of some adjectives. E.g., the demonstrative and interrogative adjectives, i 'this', a/ay 'that', e·/e·y 'which?', never appears in anything but attributive construction with nouns (e.g., a poɨ̣y 'that dairy'). They are not pertinent in this connection, since they are used equally freely in song and prose.

One can be sure of the adjective status of some forms of the numerals fron 'one' to 'six'. All six occur in prose, mostly in numerations of measuring terms; e.g., wï·r ak 'one ačok measure', o kwa·w 'one kwa·x measure', wï·r o·ṛ 'one year'. They are used much more freely in song, at least those for

'one' to 'three'; e.g., o koṇ biṛs 'one eye being blind', ĭ kwĭ·ṛ maṛs 'with both horns broken', mu köpoṭm 'all three directions'. All the forms of the numerals, including the adjective forms, have good etymological connections with forms in the other languages. Consequently, the greater freedom of use of the adjective in the songs, or in such an old, traditional construction as mupu·f n. pr. of a mountain, 'three flowers', can be interpreted as an archaism.

The descriptive adjectives, insofar as they are identifiable as adjectives by the negative criterion stated above, in some instances seem to be more freely used in song than in prose. This statistical approach, combined with the need to establish the lack of case forms, makes any conclusion rather shaky. But per 'big', pe before consonant, (3613) occurs in more combinations in song, and in what *prima facie* are less fixed combinations; e.g., pe fe·ṯ 'thumb' (lit. big finger), pe fĭ·t 'upper joint of hind-leg of calf, ham' (lit. big flesh), pe po·b n. pr. of a snake at a particular mund (text 84; Kota pe pa·b is 'python'), all prose combinations, seem to be fixed combinations in comparison with such song occurrences as pe fiṯy 'big silver ring', pe no·ṛ, pe töw 'great sacred places, great gods', pe θeš̆k ĭr 'buffalo(es) whose horns have great curves', etc. etc. The greater freedom in song may possibly be interpreted as an archaism. Similar data and distributions are found for ka 'black' (<*kar; 1073a) and nas̄ 'beautiful' (<*nal or *nalla, 2986, which in the other languages means 'good', although 'beauty' is recorded as one meaning for Tamil nalam, naṉku, naṉmai, Malayalam nalam, nallam, Kannaḍa nalla, Telugu naluvu, and 'beautiful' for Malayalam nalla); a similar statement may be made about possible archaism in song.

The adjective kuṛ 'short' (1537) as a freely occurring form has been found only in song, prose having only kuṛes̄ 'short leaf' as the designation of a tree *Eugenia calophyllifolia*; in prose the verbal noun/adjective kuṛxyt 'which is short' is found instead. It is particularly shaky to class this as an archaism since the failure of more frequent occurrences of kuṛ in prose may be accidental. Similarly with po·/po·y 'uninhabited, unoccupied' (3381; Tamil pāṛ), which occurs only in song. The absence in prose may be accidental, although it failed to turn up in prose texts about abandoned munds, where it might have been expected. It is even uncertain whether it really is an adjective, considering that for the literary languages its cognates seem to be classed as nouns (as well as adjectives, if the translations for Malayalam and Telugu are to be trusted).

Lexical evidence looking towards archaism in song is, perhaps contrary to expectation, proportionately much more sparse and substantiated with less ease. Very detailed examination of occurrences is required, of the philological type familiar in Homeric studies. I am fortunate that my somewhat deplorably over-extended collection of text data did in fact yield a corpus extensive and varied enough to stand up to such philological study and to yield evidence of lexical archaisms. This paper includes only four items, of which the first two are very clear. Of the other two, one is almost as clear as

the former two, but is rare in the corpus and its nature as an archaism is only to be established by philological examination of the occurrences and their contexts. The fourth is a *hapax legomenon* which I was lucky to record at all but which may well have been more commonly used, given more texts, unless indeed more prose texts should establish it as also a prose word.

The first, very clear archaism is a song word for 'the sun'. In everyday language the word for 'the sun' is pi·s̲. It occurs without any ambiguity of interpretation in several texts—one (text 49) an account of the sun and the moon, their relationship as elder brother and younger sister and their incestuous sexual relationship, another (text 52) the myth accounting for eclipses of the moon, in which a hare goes near the sun (sentence 18: mü·s̲, pi·s̲ xïḍk fi· 'the hare having gone near the sun') and the sun speaks (sentence 19). It also means 'heat of the sun', as in an elicited sentence: pi·s̲ xo·spini 'I bask (lit. am hot) in the sun (i.e. the heat of the sun)', parallel to: tït̲ xo·spini 'I bask in the heat of the fire (tït̲ 'fire')'. The etymological connection of pi·s̲ is with *vey-/*vē- 'to be hot, burn' (4540). Most particularly one must cite Tamil vey(y)il 'heat of sun', Malayalam veyil *id.*, Kota vi·l 'heat of sun, sunshine', and it is evident that *veyil has yielded Toda pi·s̲, which shows a meaning development 'heat of sun'→'sun' which is found in no other language of the family. One would suppose that this use of pi·s̲ for 'the sun' has involved displacement of another word, and indeed that other word is found commonly in the songs and also in the language used in one myth. The word, Toda nö·r̲ (2371, where unfortunately the Toda song usage was not indicated), has cognates in Tamil (i.e. Old Tamil) ñāyiṟu 'sun', Malayalam ñāyiṟu, ñāyaṟu, ñāṟu *id.*, Kannaḍa nēsaṟ(u) *id.*, Tulu nesuṛu̯ 'morning'; it is then a member of a South Dravidian group of cognates (the possibility that Brahui dē 'sun, sunshine, day, time' belongs with these words was abandoned in *DEDS* in favour of its more plausible membership in entry 3128).

The word nö·r̲ occurs in prose only in one myth which I recorded from two informants. In the myth the hero 'seizes' the sun with a stone chain and 'makes it drink' (or submerges it) in a lake which he has created by damming a stream; then the gods prevail upon him to 'release' the sun. The verbs for 'seize' and 'release' are paṭ-, paṭy- (3320) and pïṛ-, pïṭ- (4419), common verbs; that for 'make to drink' or 'submerge', o·f-, o·t- (338), is much more recherché and in this meaning occurs only in this myth and only with nö·r̲ as object. The generally better informant (text 43) used nö·r̲ only as object of the recherché verb and pi·s̲ as object of the other two; i.e. for him nö·r̲ o·f- was a fixed phrase handed down in the telling of a traditional story and all the rest of the narrative was comparatively free and in ordinary prose with the ordinary prose word pi·s̲. The other informant, not in general so good and in this myth rather sketchy, nevertheless (text 44) used nö·r̲ as object of both o·f- and paṭ- 'to seize', and pi·s̲ not at all, in his skimpier version.[2]

The song language uses this word nö·r̲, as familiarly as pi·s̲, as the word for 'the sun'. The concordance in *Toda Songs* has numerous entries beginning

with piˑs̲ (*TS* 922-3) and a smaller number beginning with nöˑr̲ (*TS* 895). There are several paired song-units, in the couplet technique of the songs, which have nöˑr̲ and piˑs̲ coupled as synonyms; it makes no difference, it seems, which comes first. E.g., *TS* 219.35: nöˑr̲ke muˑn ïṭfïnum/ piˑs̲ke muˑn tïrxyfïnum// 'We have put our faces towards the sun (nöˑr̲). We have turned our faces towards the sun (piˑs̲)'. *TS* 114.33: noˑṭaˑsö̲ˑ uštyïθ fiˑs̲ koˑṭy θöw öˑwïṛfïs/naˑsö̲ˑ uštyïθ nöˑr̲ koṣmuθöw öˑwïṛfïs// 'The sun (piˑs̲/nöˑr̲) that rose at Mt. Noˑṭisy has arrived at Mt. Koˑṭy'; cf. also *TS* 156.29. *TS* 131.9: kofoy fiˑsk nwïˑṭyïtwïṛ uštyïθ nöˑr̲k nwïˑṭyïḍkin 'If I must look at the sun (piˑs̲) settling on the hilltops, I would prefer instead to look at the sun (nöˑr̲) which has risen'. *TS* 37.16: piˑsumïn ïḏenwïṛ aθ in fiˑs̲ ïḏïθik/ nöˑr̲umïn ïḏenwïṛ aθ in nöˑr̲ ïḏïθik// 'When I said: "There is the sun (piˑs̲/noˑr̲)', you said, "What sun (piˑs̲/nöˑr̲) is that?"'. A common song-unit is koˑyo fiˑs̲ 'sun such as has not shone/been hot before', paired with ute muˑs̲ 'dry wind such as has not increased before' or with ner̲ θïgïḷ 'the moon at full moon'. In a Christian song, which is not entirely traditional, the composer used a pair not otherwise found (*TS* 245.5): koˑsïθ nöˑr̲yaˑ, ner̲ θïgïḷyaˑ 'O sun (nöˑr̲) that shines! O moon at full moon!'; this may be a nonce formation (with positive koˑsïθ 'that shines' instead of negative koˑyo 'such as has not shone before'), though it does not seem probable that it is, but even if it were so, the composer has used the archaic nöˑr̲. A much more traditionally composed version of the same song (song 220) has in verse 16: ušto nöˑr̲yaˑ 'O sun which has not yet risen!' (the song was sung just before dawn), coupled with ner̲ θïgïḷyaˑ 'O moon at full moon!'; ušto nöˑr̲ is not attested elsewhere, but is parallel with uštyïθ nöˑṛ quoted above (*TS* 114.33, 131.9), and even if it should be a new formation, it uses nöˑr̲.

It is apparent, then, that the archaic word nöˑr̲, i.e. archaic in the sense of inherited from PSDr., is known in prose only in a myth, but is used freely enough in the song language. It is in competition there with the prose word, the innovatory piˑs̲. Statistically, i.e. in the number of different song-units in which it occurs, it is less frequent than piˑs̲. However, since it occurs coupled synonymously with the prose word in several paired song-units, there is no chance of its disappearing from the lexicon of the songs. Moreover, we have had some reason to think that it can still be freely used in modulating upon the old-established phraseology. The word is archaic but not in danger of disappearing from song use.

The two words for 'gold', like those for 'sun', are both used in song, viz. pïn and sin; synonymous use is seen in *TS* 8.11 in the pair of song-units: sin o mun, pïn o mun, both meaning 'gold on one side'. In prose, however, only sin has this meaning, as in 44.24 and 25: sins̲ xwïky xïs 'making a hook of gold', sin garxyfïṣk ïḏti. 'the gold melted—so̲ they say'; cf. also 7.36, 40. In 107.29-31 sinïθ moð 'golden couch' is a song-unit with ï required by metrical adjustment; sin faḷ 'golden bangle' and sins̲ θagas̲ 'chain made of gold' (with locative suffix -s̲ 'made of') represent the pair of song-units:

sine/sinïθ faḷ, sin dagas. Sentence 21 of the same text has sin 'gold', but in this context full of song language it is obvious that there is an adaptation of song language (a larger corpus might have had the song-unit from which the prose is derived, e.g., sinïθ urp 'golden image'): pïnilyxuṛyk, sins, tan urp xïs, naṛtkin. 'I will make and place in Pïnily's temple his image of gold'. In prose pïn has the meaning 'gold bangle', referring to the substitute for a bell in the dairy at Küšu mund (Rivers 67, 'gold bracelet'); e.g., 78.1 küšu foṭfoy fïnn . . . ka·k fïṭs fodšk ïḍti. 'A crow came carrying . . . the gold bangle which was at Küšu—so they say' (also sentences 4 and 6); 79.15 i pïnïyi. i·ṇy, i moḍs iloθ üṭ xöṭfïṭs. 'It is this gold bangle which is not now at this mund but has been lost.

Historically, both words are of Dravidian origin: pïn<*pon, *DED* 3732; sin<*cinnam, *DED* 2136. The latter should in Toda yield *tin, which is in fact found in tingoṇy 'bag in which coins are contained for use at funerals' (-goṇy <*kōṇi, *DED* 1835, with shortening of long vowel in non-initial syllable of the closely unified compound); sin, then, is to be considered a borrowing from some other SDr. language, as are all other words with initial s-. It is possible that the special meaning, 'gold bangle', taken on by pïn has something to do with its avoidance as 'gold' in prose. We should notice too that pïn has other meanings, viz. 'circle of stones on top of mountain' (no etymological connection known) and 'privates of small girl' (*DED* 3732, where cf. the Tamil meanings of poṉ 'gold; beauty; pudendum muliebre', which is probably the direction of development of the meanings). This overload of meanings is probably the cause for the loss of the meaning 'gold' in prose, in favour of the use of the other word in a borrowed form. Then pïn in its song use is an archaism.

That both words are used in the construction of names of both men and women has no bearing on the present discussion. For details of this use, see *RSLST* 83f., §6.7.

An instance of a word that has been displaced in everyday language but that occurs in song, though it is recorded only rarely, is that for 'blood', nötš̆/nets,[3] derived from *nettv̆r (*DED* 3106), which occurs in SDr., CDr., and Brahui (ditar). The word for 'blood' in everyday use, and in song as well, is po·x, which is listed with a query in *DED* 4370, which includes verbs based on *vāŋg- 'to leak, flow', *vākk- 'to pour out (transitive)". Toda has verbs po·x- and po·k-. It is thought that the noun, based on the intransitive verb, is 'that which flows/leaks'→'blood'; nouns are rare in this entry, but Telugu has vāgu 'rivulet, streamlet', and a Toda innovation of this sort in meaning is entirely possible. Perhaps it should be noted, as an unsettling bit of data, that the verbs 'to flow' used with po·x as subject are ux-, uk- (480) and waṛf-, waṛt- (*DEDS* 849, 4269), which historically have nothing to do with the verb po·x-.

In song language the usual phraseology for blood running (from a wound or the like) is a pair of similes which compare it to the (red) juice or the

'milk' of certain berries (not botanically identified); the relevant song-units are (in either order): kaṟ o·yad, po·s̄ o·yad 'becoming (like) juice, becoming (like) milk' (for the five passages in *TS*, see concordance). In two passages po·s̄ is replaced by po·x (*TS* 71.17, 226.25); this is probably a secondary modulation. In two passages (*TS* 71.16, 91.15) the old Dravidian word occurred, recorded in one passage as nötš̆ (but printed in *TS* with a metrically inserted vowel ï as nötïš̆), in the other passage as nets̄; in both occurrences it is followed by kaṟ 'juice': nötš̆/nets̄ xaṟ 'the juice which is blood'.

It seems that *TS* 71.15-17 and 226.23-25 represent the thematic context for the song-units containing these words for 'blood'. The basic theme is the killing of a male calf in the 'calf sacrifice', the blood flowing on its forehead from a blow on its head, and the similes of the red berry-juice for the blood. In the recorded songs all occurrences of this thematic material or of parts of it refer metaphorically to the death or wounding of a person.

The two passages are: *TS* 71 (lament for a young man killed when catching a buffalo at a funeral),

vs. 15 tï·ṛ xuḍ xïs kwaṟtïšt ena·/ tïry e·ṟ xïs paṭyïšt ena·//
16 nöt(ï)š̆ xaṟ kïsïšt ena·/ nity(ï)š̆ fo·x ukïšt ena·//
17 pum müṯpum kaṟ o·yad ukïšta·/ ö·ṯpum po·x o·yad ukïšta·//

'O my son! Have they killed you with a club of tï·ṛ wood? O my son! Have they seized you, making you like the male calf separated from its mother before it is sacrificed (tïry e·ṟ 'separated male-calf')?

'O my son! Have they made the juice (kaṟ) which is your blood (nötš̆)? O my son! Has the blood (po·x) flowed on your forehead?

'Has (blood) flowed like the juice of the ripe müṯ berry? Has blood (po·x) flowed like (the juice of) the ö·ṯpum berry?'

TS 226 (lament by an English mother for her son who was mauled by a tiger),

vs. 23 tïry e·ṟ xïs kïmtïšta·/ tï·ṛ xuḍ xïs kü·pyïšta·//
24 nityïš̆ xaṟ kïsïšta·/ nityïš̆ fo·x swïṭyišta·//
25 pum müṯpum po·x o·yad ukïšta·/ ö·ṯpum kaṟ o·yad ukïšta·//

'Have they killed you, making you like a male calf separated from its mother before it is sacrificed? Have they made a club of tï·ṛ wood and killed you?

'Have they made a spot of blood (kaṟ) on your forehead? Has blood (po·x) fallen in drops from your forehead?

'Has the blood (po·x) flowed like (the juice of) the ripe müṯ fruit? Has (blood) flowed like the juice (kaṟ) of the ö·ṯpum berry?'

As between 71.16 and 226.24 we should apply the principle of the *lectio difficilior* to determine which is the more original phraseology: nöt(ï)š̆ is a

non-prose word and consequently figures as the *lectio difficilior*; nityïš in 226.24 is the result of assimilation to the song-unit nityïš fo·x 'blood on the forehead'. (It may be noted that the pair of song-units with nöt(ï)š shows initial alliteration of n-, such as was discussed in Emeneau 1966, 335-9; this is stylistically good, but has no relevance in the present discussion.) The argument of the *lectio difficilior* is buttressed by the occurrence of nets xaɼ in *TS* 91,

vs. 14 pum müɬpum kaɼ o·yad waṛtïšta·/ öö·ɬpum po·s o·yad ukïšta·//
15 eɼsïθ xwï·ṛṇ pïḍjïp o·ɬm iloθa·/ nets xaɼn nilðïp o·ɬm iloθa·//

'Has (blood) gushed forth like the juice of the ripe müɬ berry? Has (blood) flowed like the milk of the ö·ɬpum berry?

'Was there no one at all who would make the horn which gored you let you go? Was there no one at all who would stop the flow of blood (lit. the juice which was your blood)?'

The song-unit in verse 15 eɼsïθ xwï·ṛ 'the horn which gored' occurs very frequently paired with paṭiš foṇy 'the disease that has seized'. In this passage the illness (?) which later killed the man is not in point, since the passage refers to his being gored by a buffalo months before he died. Mention of the final illness is avoided in these two verses, to be sung about later, and a new combination is made of the goring horns and the blood phrase brought in from the theme of the calf-sacrifice. The song-unit nötš/nets xaɼ must have had this shape, then, in the calf-sacrifice context, to be available for such new use. This reinforces the priority of *TS* 76.16 over 226.24, and the relative antiquity of the song-unit with the old word for 'blood'. It seems possible then to ignore the informants' mentioning of Badaga netru (their Toda pronunciation of the Badaga word, how known to be nettaru from a Badaga dictionary; the Badaga word is not the source of the Toda word, but merely an etymon. The Toda word, then, can be taken with some assurance as an archaism in song.

A noun ka·ɼ 'darkness', found only in the song language, is probably an archaism. It occurs only once, in a song by a Christian composer (his being a Christian being nothing against the word's being traditional): *TS* 220.19 toc xaga·ɼfya· nïn ga·ɼ fïṭ so·myke föɬð pïṛ aṭ fï·x '0 intense darkness (kaga·ɼf)! Leaving off your darkness (ka·ɼ), let the light go to God! Go away!' The prose word for 'darkness' is kaga·ɼf, as in 170.3 pi·s fürs, kaga·ɼf o·fïṇ. 'The sun having set, it became dark', or kaga·ɼ, as in 169.72, 73 kaga·ɼ foɬy 'a dark building'. These two forms are the common song words also, as in the song passage just quoted (*TS* 220.19) and such song-units as: kaga·ɼ no·ṛ 'dark sacred place; the sacred place is dark', kaga·ɼs xoṇ 'eyes in darkness'. Any doubt there may be that ka·ɼ is a song archaism results from reliance on its non-occurrence in prose, which could be an accident. If however it really does not occur in prose, the prehistory of the word makes

the matter clear. In *DED* 1175 *kaṟ- 'to be black' has in Malayalam the noun kāṟu 'darkness, black, cloud' (Tamil does not have this noun), with which Toda ka·ṟ is cognate. At some point in the history of the Toda word it was reinforced by prefixing another form meaning 'black', *DED* 1073 *kar-, which in Toda in compounds loses *r before a consonant, i.e. *ka(r)-ka·ṟ> kaga·ṟ (or possible *karum-ka·ṟ, the nasal in which would explain the resultant g). In kaga·ṟf, the final f requires postulation of a pre-form *kāṟuvu, i.e. *kāṟu with the final u 'protected' by -v(u). The two forms kaga·ṟ and kaga·ṟf, as used in prose, displaced ka·ṟ, which survived in song as an archaism; kaga·ṟ and kaga·ṟf also compete in song with ka·ṟ, which is probably on the way to complete disappearance.[4]

For the Toda language of oral poetry it is possible now to say that archaism is one of its traits. Its verb morphology includes very clear archaisms; it seems probable that it uses the old Dravidian adjective system with more freedom than does the prose language; there are several lexical items that are demonstrably archaisms, fewer than one would expect, though there are undoubtedly more to be discovered.

On the other hand, it is not to be thought that this song language is all archaism. Much of the morphology, that of the nouns and pronouns, and much too of the verbs, does not differ from that of prose, even though at times the metrical structure requires slight differences from the prose language. Another feature of the song language is its use of comparatively recent lexical borrowings. Badaga is one of the sources. One of the recurrent ways ('themes') of introducing in lament the exploits of a dead man is to say that he was born as a tiger, as a snake. The song-units used are: *TS* 34.5 püsy o·yad, o·f o·yad 'being a tiger, being a snake'; *TS* 71.5 üly o·yad, o·f o·yad *id.*; *TS* 106.6 üly o·yad, püsy o·yad, both meaning 'being a tiger'. In the last üly and püsy are synonyms, both derived from *puli (3532), üly being the Toda pronunciation of Badaga huli and püsy the Toda word. In the other two either form of the 'tiger' word is combined with o·f 'snake', the Toda pronunciation of Badaga ha·vu (3361); the cognate Toda word occurs in po·b o·yad, which is found in the song corpus, though (probably accidentally) not in this combination with the 'tiger' word. Other words of Badaga origin are, e.g., ost 'hungry' (3165a), oẓ 'famine' (3165b), oṇm 'money' (though this is ultimately from Indo-Aryan; *DBIA* 250), oṭ oxol 'broad daylight' (3198), kic 'fire' (1272). Words of Tamil origin are found, e.g., no·ṭemk/go·ṟn 'chief man' (<nāṭṭā(ṇ)maikkāraṉ 'headman of a village, tribe, etc.'), kopol 'boat' (1022); or of Indo-Aryan origin, filtered presumably through Tamil or Kannaḍa, e.g., koce·ry 'lawcourt' (Marathi kacerī<Hindi kacaharī <Sanskrit *kṛtyagharikā; Turner 1966, entry 3429). There are even several words of English origin: po·rkuð/po·rkwïð 'barracks', mu·ṭïṟ 'motor, bus', rayil 'railroad'. English or Portuguese may be the origin of po·θiry 'priest, chaplain' (cf. English *padre*).

The Toda song language, then, is indeed to be characterized, in Bowra's

words for the language of heroic epic, as 'artificial' and a Kunstsprache—but we have emphasized in this paper its very considerable ingredient of archaisms.

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NOTES

1. Emeneau 1958b, 35-46; Subrahmanyam 1971, 221-5. [P. S. Subrahmanyam (1991, i.e. *Studies in Dravidian and General Linguistics: A Festschrift for Bh. Krishnamurti* [Hyderabad: Osmania University]. pp. 49-72, esp. 62-7) has now correctly found the origid of -ʒ̈- in a periphrastic use of the verb *iru 'to be'. ïr- (*r > ʒ̈); still in some features an archaism.]

2. For other difficulties in the phraseology especially as represented in the version in Rivers and for references to the myth in the song language, see text 43, note to sentence 42.

3. The vacillation in recording this word was due in part to its rarity. The sibilant should be š̲<*r; s̲ is probably a mis-recording, since in consonant clusters I found much difficulty in distinguishing between these two sibilants. The rules for divergent development of *e as e and ö are still somewhat uncertain, and I do not yet know which recording was correct in this word (or whether in some contexts both are correct).

4. Since writing this paragraph on kaga·ɾ/kaga·ɾf and ka·ɾ, I have re-read Subrahmanyam 1976, 88-92. He has stated that PDr. *ā remains as Toda a·, if it is followed in the next syllable by *-ay, and changes to Toda o· in other environments. This leads him to expect o· in these words, and to consider the actual Toda forms to be borrowings from Malayalam kāṟu. Malayalam is *prima facie* an unlikely source for Toda borrowing. Moreover, unless Malayalam has a form which would explain the final f in kaga·ɾf, I would feel reluctant to accept borrowing as the explanation of a· in the Toda words. Subrahmanyam's statement of the environments in which the two developments took place seems correct. I would find the source of Toda a· to be the a-quality of the vowel in the adjective forms for 'black', viz. ka- (—*kar-), kax(t), of which ka- is the initial element in kaga·ɾ(f) (1073a); *a remains as a in Toda before *r (Subrahmanyam 1976, 93). This is, of course, an attempt to save ka·ɾ as an example of archaism in song; kaga·ɾ(f), on the other hand, is the normal prose word for 'darkness' and I think it unlikely that it is a borrowing.

CHAPTER XVI

BRAHUI LATERALS FROM PROTO-DRAVIDIAN *r̤

IN MY EARLIER TREATMENT (1971) of the Brahui representatives of PDr. *r̤, I stated (191, table) that there are examples showing r, rr, ṛ, ḍ (?), and zero* I dismissed from consideration (185, n. 9) an example which had been suggested, in which Brahui lh, i.e. voiceless l, might represent *r̤, on the ground that this would be a unique example. This is the verb pilhing 'to squeeze, wring out, massage, press hard (figurative)', which is obviously cognate with Malto pilqe 'to squeeze', and which in *DED* was grouped with it in entry 3437 and was separated from entry 3440 *piṛ- (e.g., Ta. piṛi 'to squeeze, press out with hands', Ka. piṛi 'to wring or squeeze out', Te. piḍucu 'to squeeze, wring, press out'). Krishnamurti (1958, 280, 291) had already grouped the Brahui and Malto items with those of *DED* 3440, and Burrow (1968, 63, 69) in his treatment of *r̤ in Kuṛux and Malto found Krishnamurti's suggestion probable for Malto at least. In *DEN* (1972) Burrow and I with a query included the Malto and Brahui items of 3437 in 3440 (thereby deleting entirely the entry 3437 of *DED*). It now is possible to remove the query from *DEN* 3440, since there are in fact three clear instances of a Brahui lateral (l or lh) representing PDr. *r̤, backed by three more instances of Kuṛux and Malto l in addition to Malto pilqe. Burrow (1968) had already pointed to these last, and it should have been noted that *DED* 3537 already contained a queried instance of Brahui l for *r̤. The matter is clinched by the third Brahui example, for which my earlier attempt (1962) to find *k as an origin for Brahui lh is now seen to be perverse, since Tiru K. Paramasivam has suggested to me a very persuasive and straightforward new etymology. The whole matter is illustrative of the difficulties of treating definitively the scanty Dravidian etymological remains of Brahui.

Burrow (1968, 69) found Kuṛux and Malto l for *r̤ in *DED* 4096, *muṛuk- 'to be submerged, dive', Kuṛux mul^{u}x-nā, Malto mulg-r-e; since Parji mulg-, Gaḍba mulg- also have l, he thought of 'a fluctuation between -r̤- and -ḷ- going back to' Proto-Dravidian. This group of etyma also shows fluctuation between *-r̤- and *-ṇ-: Kannaḍa muṇugu (beside muṛugu), Telugu muṇugu (and munũgu, mungu), Kuṛux mun^{u}x-nā; this fluctuation is not uncommon, and is seen, e.g., in 3985 Tamil muṛuṅku 'to swallow, devour', Kuṛux (Hahn) munx-nā 'to devour'.

Burrow (1968, 65, 66) cited Kuṛux nul^{u}g-nā 'to insert a thing into another by a sliding push', nulg^{u}ṛ-nā 'to creep into', Malto lulq-e 'to thrust into',

*This article is a revised version of *JAOS*, 100.311-12 (1980).

lulq-r-e 'to disappear (as in a crowd or jungle)', lulg̣-r-e 'to hide oneself', items in *DED* 3076 *nuṛ- (especially Kannaḍa nurgu 'to force oneself into, creep into').

Burrow (1968, 69) compared Malto bal-r-e 'to slip off, be left behind' with 4336 *vaṛu- 'to slip, etc.'; the query for Malto in *DEDS* may be removed.

The items in *DED* 3437, 3440, *DEN* 3440, *piṛ-, include Malto pilqe and Brahui pilhing; there is also a Brahui item, princing 'to squeeze', with metathesis and consequently a different development, for which see my treatment (1971, 192-4).[1]

Now that it is evident that North Dravidian, including Brahui, has instances of laterals for PDr. *ṛ, it is possible to point with a considerable degree of confidence to both the Brahui items in 3537 *puṛu 'worm'. One item, pū 'worm, maggot, caterpillar' has always seemed clear; I listed it previously (1971, 185) as an instance of the process of zeroing of *ṛ, and discussed it (195) inconclusively since the phonological conditioning is unique in Brahui. The other item in 3537 is pulmak(k)ī 'tapeworm', which consists of pul and mak(k)ī. The latter word is listed independently by Bray (1934, 198) as makī 'intestinal worm' though the illustrative sentence given specifies it as 'thread worm' in contrast with 'tapeworm'. Bray's etymological note on makī connects it with makala 'leech' which he derives from Persian makil; Persian or some other Iranian origin is then to be accepted for makī (as was done in *DED*). On the origin of pul-, Bray was uncertain; his note is: ['flowering-worm'? or is pul- older form of pū (cf. Drav. puḷu) preserved in cmpd.?]. The first suggestion involves Indo-Aryan *phuil- 'flower' (Turner 1966, entry 9092) e.g., Sindhi phulu, Lahnda phull (whence Brahui pull 'flower'); however, it seems semantically too improbable to need serious consideration. The latter suggestion, finding a quasi-identical compound of words from two languages seems to be a satisfactory analysis; pul- would then (as Bray saw) be the resultant, with *ṛ yielding a lateral, in a context different from that of the independent word pū 'worm'.

The final Brahui example is malh 'son', which I attempted (1962, 68) to derive from 3768 *mak-; it was so listed in *DEDS*. It has now been suggested by Paramasivam that it belongs rather in 3887 with Tamil maṛa 'youth, infancy, infant', etc. This is beautifully straightforward and provides a clinching example of *ṛ>Brahui lateral. The other items in 3887 show the meaning 'young domestic animal' and also the fluctuation *ṛ: *ṇ, as in Tamil maṇaṅku 'lamb,' Kannaḍa maṇaka, maṇika, maḷaka (*ṛ>ḷ before vowel) 'young cow or buffalo (fit for breeding)'. *DEDS* compared with 3887 the items in *DED* 3912; Kuṛux manxā 'male buffalo', Malto mangu 'buffalo', which have n<*ṇ and correspond phonologically very closely with Tamil maṇaṅku and Kannaḍa maṇaka; unification of the two entries 3887 and 3912 is indicated.[1a]

Whatever plausibility I claimed to have established has now been removed from my attempt (1962, 67-9, sect. 5) to find *k as an origin for four examples

of Brahui lh,—quite apart from the phonological implausibility of such a change. The beginning of the section retains validity in its list of examples of lh and its statement of their etymological connections.[2] All represent *l or *l̤; so too does probably lh in palhing, besides palēfing, whatever the etymology may be (see note 1[a]). We now have added *r̤ as the origin of lh in pilhing (3440) and malh (3887). We are left with mōlh 'smoke', mēlh 'sheep', and hīlh 'fly'.

mōlh 'smoke' still remains, on semantic grounds, in a North Dravidian group (*DED* 4215) of which Malto provides the simplex stem mog̤-, i.e. *mok-, 'to emit smoke'. It was tempting indeed to find that *-k->Brahui lh, but this no longer seems plausible. As an alternative, it would be possible to suggest that *mok-al (a noun derivative) is the origin of the Brahui word, with -oka- becoming -ō- by loss of -k-. I doubt, however, whether any parallel can be found in Brahui for such a formation, or indeed for the posited phonological development; and yet it is not to be ruled out as impossible.

hīlh 'fly' has been put in *DED* 453, whose basic form is clearly *ī. No form with a lateral extension is to be found in the entry. But it may be noticed that 457 contains items for 'flying termites': Tamil īyal, īcal, Malayalam īyal, Kannaḍa īcal, Telugu isuḷḷu. Since 453 and 457 have in common *ī, there is a possibility that the items in 457 are derivatives of the simpler base of 453 with a specialization of meaning. The South Dravidian items of 457 seem to be basically *īcal (c>y in Tamil-Malayalam must be secondary), i.e., with -cal as derivative apparatus. But it must be noted that in 453 Malayalam īcca already has an extension -cc-. Can we argue that somehow Brahui hīlh represents *ī plus -al, with or without c or y between? This is without parallel, but not impossible. If it cannot be accepted, nothing is left but to say that hīlh shows *ī plus a lateral suffix not found elsewhere in 453.

mēlh 'sheep' (*DED* 4174) is left. All the other items in the entry show *mēkk- or *mēk- (and the meaning 'goat'), except for Telugu mrēka, given in *DEDS* as inscriptional. It now appears (courtesy of Professor Bh. Krishnamurti) that this form represents mr̤ēka which occurs in an inscription of the early 8th century in a sentence of great obscurity. The meaning of the word was only guessed at. Nothing can be based on the form, and Brahui mēlh is essentially left without an etymology, in spite of my earlier efforts (1962, 68-9). A desperate suggestion is that the l-suffix seen in several of the Kafir dialects in words for 'sheep' or 'ram' (Turner 1966, entry 10334, and Morgenstierne 1973, 125: Ashkun mišalá 'sheep', Kati meṣéle 'ram', Kalasha meṣ 'ram', meṣalák 'young ram') is the origin of the Brahui lateral; this leaves unexplained the disappearance of the sibilant.

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NOTES

*This paper was submitted in 1975 to the editors of *Indian Journal of Linguistics*, for inclusion in a volume which was to be dedicated to Professor S.K. Chatterji. After his death the dedication was changed to his memory. Since it appears uncertain when or if the volume will appear, I am grateful to the editor of *JAOS* for accepting the paper both in memory of S.K. Chatterji and in celebration of the Journal's centennial volume. [The Indian volume appeared as *Suniti Kumar Chatterji Commemoration Volume* (ed. Bhakti P. Mallik; University of Burdwan, 1981). The paper occupies pp. 101-5.]

1. *DEDR* 4183 unites these two *DED* entries.

1a. *DEDR* 4747 unites the two entries.

Brahui palhing 'to be boiling, be stewed, boil with rage', palēfing 'to make to boil, boil (meat)' were entered with a query in *DEN* 3540, i.e. with *puṛ- (Tamil puṛ-uṅku 'to be steamed, stew, be hot with anger', etc.). In spite of the perfect fit in meaning, the phonology is wrong (Brahui a may represent *a, *e, *o, but not *u), and the item cannot be used as evidence.

2. To be added to xalh, imperative of xalling 'to strike, kill' (1772), is the homophonous xalh, imperative of xalling 'to uproot' (1157); these are in *DEDS*. pilhing is discussed above and is now put in 3440.

CHAPTER XVII

INDIAN PRONOMINAL DEMONSTRATIVE BASES: A REVISION*

A VOLUME of papers which is to be published in memory of the late Sudhibhushan Bhattacharya will contain my contribution entitled "Demonstrative pronominal bases in the Indian linguistic area". It is an attempt to deal with a feature of such bases which occurs in some languages of all three major families of the Indian sub-continent, Indo-Aryan (IA), Dravidian (Dr.), and Munda. The paper unfortunately, as soon as sent off, needed thorough revision, since the most important work on this topic for a Munda language, although published in 1972 by Zide, only came to my attention after my paper was written in January 1980. The present paper, then, presents the required revision.[1]

The demonstrative bases of Dravidian have not been treated in searching detail in any of the major treatments of Dravidian comparative grammar. The accompanying table gives a summary of the bases in the various languages.

A series of three bases, *i 'proximate', *u 'intermediate', *a 'remote', is evidenced for PDr. in a number of languages, including some in all of the subgroups, either in full working order or with *u obsclescent.

Three of the Central Dravidian (CDr.) languages clearly have *e 'intermediate' in a series with *i 'proximate'. The 'remote' forms are *a in Pengo and Kui, with an 'even more remote' o in Kui. Two of the recordings of Kuwi have series beginning with i e; Schulze's continues with he hu, Israel's (1977) with u he hu; Fitzgerald's account has only i u a. These CDr. languages obviously are independent in detail by language and/or dialect. Their common 'intermediate' *e seems to be attested in Gondi also, certainly in the Sironcha dialect's form eke 'in that direction' (*Voc.* entry 328), and possibly in the forms with ē- for 'this man, these men' (*Voc.* entry 390).

Most puzzling in several of the CDr. and North Dravidian (NDr.) series are those items with initial h-. In two of the recordings of Kuwi, bases he- and hu- are recorded. Schulze's series is: i e he hu, he- meaning 'that at a greater distance (than e-)', hu- 'that at the greatest distance'. Israel's series is: i e u he hu, with increasing distance indicated by the successive items.

In Kuṛux one member of the series has initial h; the series is: i hu a. But intensive search in Grignard's grammar (Grignard 1924, pp. 108-109) has discovered several adverbs of place in which, without any meaning variation,

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there occur alternative forms with and without initial h-, viz. isan/hisan 'here', asan/hasan 'there', in series with husan 'there' (without a parallel *usan); iyyā/hiyyā 'in this place', ayyā/hayyā 'in that place' (but only huiyyā); ittrā/hittrā 'this side, in these parts', attrā/hattrā 'that side, in those parts' (but only huttrā).

Similar to these last items in Kuṛux are items in several of the CDr. languages, in which no difference of meaning is recorded as correlating with the presence or absence of h-.

Pengo has the series: i e a, but a few forms are recorded in the grammar (Burrow-Bhattacharya 1970, p. 7 and vocabulary) with bases he- and ha-; it is possible that they generate complete sets of forms and even that there are differences of meaning, but the grammar (p. 7) treats the occurrence of h- as something 'sporadic' or idiolectal.

The Gondi vocabulary of Burrow and Bhattacharya (*Voc.*) records a smattering of forms with h-. The Adilabad and Yeotmal dialects (i.e. in the west central area of Gondi) have several forms with h- based on i and a, viz. Yeotmal and also Adilabad as recorded by P. Setumadhava Rao id/hid 'this woman or thing', iv/hiv 'these women or things'; Adilabad ad/had 'that woman or thing', av/hav 'those women or things'. The Adilabad dialect as recorded by P.S. Subrahmanyam (1968) has several case and adverbial forms with h- (pp. 233-4), viz. handāl 'from that side', hāpē 'with that', hindāl 'from this side', hīkē 'here', hīpē 'with this'. The Mandla dialect (in the northern layer of dialects) as recorded by Phailbus has hag(g)ā 'there' (in contrast with ag(g)ā of other dialects).

In Brahui the series is: dā ō ē. Bray's grammar (1909, p. 214) and his vocabulary record that in several adverbs and compounds ē is (as he puts it) 'not infrequently aspirated'. The items are: ēng/hēng 'that direction' and its case forms: ēngī/hēngī 'in or to that direction', ēngāi/hēngāi 'towards that direction', ēngān/hēngān 'from that direction'; ē-mōn/hē-mōn 'that side, the other side'; ē-pār/hē-pār 'that side, the far side'. This alternation, however, has nothing to do with the matter in hand. It forms part of the problem presented in general by Bray's writing of initial h, of which he says (p. 29): 'in ordinary conversation it is often hardly perceptible, and even dropped altogether'. Etymological study (Emeneau 1962, p. 62) has made it clear that Bray's h- is never represented by any phoneme in a PDr. form. In other words, it is, like the German glottal stop, merely the beginning of a vowel in initial position (and in hiatus). It has been reported also, but with no detail, that various dialects have h-, ?-, or zero in this position, and that contiguous dialects of Balochi show comparable alternation (Emeneau 1964, p. 75). Whatever the historical origin of this phenomenon, it is irrelevant in the present context.

These Dravidian data are restricted to some of the languages and even to some of the dialects in the central languages. The presence of h- is not restricted to any one of the demonstrative stems. In two dialects, or recordings,

of Kuwi it is attended by meaning differentiation. In Kuṛux one of the bases always has h-, so that it is correlated with meaning. Otherwise, the presence of h- would seem to be a free variant of its absence—if, that is, we can trust ouı sources. Certainly it seems impossible to reconstruct anything for proto-Dravidian from the data at hand, or for proto-CDr., or even for proto-Kuwi.

A paper by De Vreese (1968) pointed out parallel phenomena in modern Indo-Aryan (NIA) and Munda, without mentioning the Dravidian phenomena. Some dialects of Maithili, Bhojpuri, Bengali, and the Bhatri dialect of Oriya have demonstrative forms with initial h-; these languages belong to the Magadhi subgroup of NIA. De Vreese collected these forms and compared with them many parallels in the northern Munda languages, Santali, Mundari, Ho, Korwa, Kharia, etc., notably the Santali series, which I discuss below.

Geographically, these NIA and Munda languages treated by De Vreese are in the same large area, i.e. the eastern end of the Ganges valley and the contiguous hilly areas to the south (i.e. the northern part of the Eastern Ghats and the Central Indian hills). Some of our Dravidian languages are in the same area, viz. Kuṛux, Kuwi, Pengo; Gondi is marginal to it. We would like to know whether there is contact within the area between speakers of the various languages and dialects of the three families. So far, however, it is impossible to establish this matter in any detail, or even in part to plot it roughly on a map. Occasional snippets of information do inform us that, e.g., the speakers of Pengo live in an area where Bhatras live, i.e. the speakers of the Bhatri dialect of Oriya already mentioned. Kuṛux speakers (Dravidian) and Mundari speakers (Munda) are co-inhabitants of Chota Nagpur. No information is at hand concerning contact of Kuwi speakers with speakers of Munda languages, even though collation of various maps seems to show that Kuwi is spoken in the same area as Juang or Bhumij.

This topic of geographical contiguity has been touched upon since De Vreese found that the convergence in the Magadhan NIA languages and the northern Munda languages is due to 'borrowings from Munda' in the NIA languages involved. His argument is based on the unconvincingness of suggested IA origins for the phenomena in these IA languages.

It would be well, before examining this areal hypothesis further, to look at the IA side in wider perspective. Outside this area there are parallel IA phenomena involving initial h in demonstratives. E.g. the Sindhi demonstratives have initial h- (hi-/he- hu-/ho-); the Marathi proximate demonstrative has h- (*sg. masc.* hā, *fem.* hē, *nt.* hẽ). For the latter an IA explanation seems possible: *eṣakaḥ > Apabhraṃśa (Hemacandra) ehau > hā (Master 1964, p. 92). This probably gives warning that IA origin for the h- in the areal linguistic trait may have to be seriously considered.

Jules Bloch, moreover, collected numerous instances of h- in pronominal forms in IA, characterizing them as 'not justified by the etymology'. The forms listed (Bloch-Master 1965, p. 70) are, in the inscriptions of Aśoka:

hevaṃ 'thus' (=evaṃ), hemeva 'just thus' (<Skt. evam eva), hida 'here' (=Skt. iha, Pali and Aśoka idha), hedisa- 'like this' (=edisa-, Pali edisa-), hesā 'this (*fem.*)' (=esā, Skt. eṣā). In addition, he lists Pali hevaṃ (=Aśokan hevaṃ), Marathi hā 'he', Sinhalese hē 'he', hō 'she' (beside ē and ō), and Bengali hethā 'here' (Pkt. ettha), hothā 'there'. Presumably this is where the Magadhan forms collected by De Vreese should be classed. Bloch's explanation was that h- was 'intended only to reinforce the expressiveness' of these words.

We find, then, rather numerous instances of demonstratives with initial h- in IA, from the Middle Indo-Aryan of Aśoka (3rd century B.C.) down to the present, in widely scattering geographic areas from the Indus Valley to Ceylon, but with a major concentration in various dialects of the Magadhan area. Explanation in genetic IA terms has proved difficult, with rather divergent explanations given by various scholars. Contiguous with the Magadhan area of concentration are occurrences of forms with h- in several of the Dravidian languages, again with several other languages outside this area showing similar phenomena, and again with no explanation appearing in genetic Dravidian terms. Finally, as De Vreese pointed out, the northern Munda languages, i.e. those contiguous with the IA and Dr. languages in the area of concentration, also have demonstratives with h-. He, noting the difficulty of explaining the IA forms historically, took the phenomena to be explicable in terms of linguistic area diffusion and plumped for Munda as the source.

Since De Vreese wrote, Zide (1972, pp. 267-74), in a paper entitled "A Munda demonstrative system: Santali", has provided a deep analysis of the Santali system as presented by P.O. Bodding in 1929. The system, as characterized by Zide, has 159 forms. The deep analysis presents three demonstrative roots: o- 'this', i- 'that', a- 'yonder', each of which occurs with one of three pre-demonstrative qualifiers: n- 'near', ϕ- 'unmarked', h- 'far'. There are then basically 'nine degrees of relative distance'. Other specifications occur, with which we shall not be concerned further: lateral, i.e. to the side, with infix -Vh-, vs. non-lateral unmarked, intensification ('this very', infix -Vk+-), sensory modality (nɛ-- 'visual' vs. -tɛ- 'non-visual, e.g. aural'), number, and gender (animate vs. inanimate). Zide states that these combinations, with one or two constraints, yield a total of 159 forms, and demonstrates that the deep-lying construct yields actually-spoken, surface forms by a complex set of rules. The forms show initially, with increasing distance, the initials: nu-/no- u-/o- hu-/ho- ni-/nɛ- i-/ɛ- hi-/hɛ- na- (not in Zide's tables, but quoted, p. 271, from Bodding as a variant) a- ha-.

Zide (p. 272) says that only Santali and Mundari-Ho (the Kherwarian sub-branch) have these 3×3 combinations of qualifiers and roots. The other northern Munda languages have a scattering of h- and n- forms, and 'the general scheme ... fits the data in the other languages fairly well'. Zide

promises comparative treatment elsewhere, but, so far as I know, we do not yet have it.

Detailed comparison between Santali-Mundari and the Dravidian data in terms of possible borrowing from the complex, but well-organized system on the Munda side into the less well-organized systems of the Dravidian languages, requires attention to the geographical contiguities.

Kuṛux, contiguous with Mundari, has in its series (i hu a) the 'intermediate' base hu, which is explicitly said to mean 'intermediate between near and far, or close to the person addressed'. This agrees well enough with Santali-Mundari hu-/ho-, which indicates the farthest distance within the proximate zone, and we might think of straightforward borrowing of the item, since Kuṛux is unique in having this item in this place in the series. The adverbial items of Kuṛux in which hi- alternates with i- 'here' and ha- with a- 'there', might show borrowing of ha- from Mundari ha- which indicates the most remote distance; but hi- 'here' cannot be borrowed from Mundari hi- which indicates the most remote point in the intermediate zone.

The Kuwi items look *prima facie* like borrowing from Munda, with their longish series showing increasing distance. Unfortunately, the order is wrong. Both Schulze's and Israel's series have he- hu-, whereas the Santali series has the reverse order: . . . hu-/ho- . . . hi-/hɛ - . . ., hu- being farthest in the proximate zone, while Kuwi's hu- is most remote in the whole series. We do not yet know the semantic characteristics of this trait in the Munda language or languages with which Kuwi might be or have been in contact, but unless it should turn out that such language has a very different system from that of Santali-Mundari, the use of the Santali system to establish borrowing by Kuwi has little to be said for it.

To attempt to save the hypothesis of areal diffusion we might think of borrowing of merely initial h- as a marker of the more remote. This would explain Kuwi very nicely, and would do well enough for Kuṛux hu-, as based on the Dr. intermediate u-, if we are not to take hu- as a straightforward borrowing. Again unfortunately, the accounts for the other Dravidian languages—Pengo and Gondi are involved—have h- alternating with absence of h- without difference of meaning (if the accounts are to be trusted).

On the IA side, the Magadhan accounts show (in De Vreese's account) in Maithili and Bhojpuri what seems to be free variation between forms with and without h-. They have bases, in Maithili ī/e-~hi-/he- 'this' and o/u~hu- 'that'; in Bhojpuri i-~hi- 'this' and u-~hu- 'that'. This reverses what is found in Santali, and agrees in general more with the Kuwi data, though even there the meanings of the demonstratives with front vowels do not agree very closely. The other IA languages cited earlier have h- either as obligatory initials of morphemes (as in Sindhi and Marathi) or as variations (as in Sinhalese).

Explanation in terms of borrowing of morphemes then has come to very

little, since the semantics in almost all instances seems to have gone wrong. Could we speculate in another direction?

Earlier I quoted Bloch as finding the initial h- of IA to be 'expressive'. This may be promising, but considerable restatement is required.

It has been noted often enough about demonstratives that 'deviations from the phonetic pattern sometimes occur in [deictic] words'; I am quoting Bloomfield (1933, p. 147), who gives as examples that in English initial [ð] occurs only in the series *they, this, that, the, then, there*, etc., and that in Russian the phoneme [e] occurs initially only in demonstrative words (e.g. ['eto] 'this'). In Vietnamese, in roughly the same class of words a departure from normal phonology is seen, in that difference of tone alone distinguishes 'proximate' and 'remote'; e.g. dây 'here' vs. dâý 'there' (Emeneau 1951, p. 136; Thompson 1965, p. 142); Thompson analyses these words into smaller significant elements, a procedure which is not possible for most of the lexicon (except for 'expressive' derivatives). The point at issue is that in these demonstratives there is a departure from the normal monolithic phonological independence of words. Is it possible that we have here an approach to a 'universal' tendency, that there is a greater probability that demonstratives (in the broadest sense) will show divergences from the phonological norm of the language, than will other elements in the language—a tendency that they share with 'expressives'? And as a corollary of this, there is a greater probability that they will in their historical development show phonological divergences from the norm. The latter is seen e.g. in the syllabic losses in the historical development of French demonstratives. Another example is shown by the demonstratives' departure from the 'apical displacement' rule of development in the CDr. languages (e.g. *iraṇṭ- 'two': Telugu reṇḍu, Gondi re/anḍ, Pengo rinḍ-); the demonstratives have displacement, even though the consonant involved is not apical, but v or d (e.g. Telugu vāḍu 'that man': Tamil avaṉ; Telugu adi, oblique stem dāni- 'that woman or thing': Tamil atu).

I would suggest then that the initial h- in demonstratives in some of the CDr. languages is an instance of this tendency. The point will not be a descriptive one, since h- otherwise occurs from various sources in these languages, but a historical one, since no reconstruction of a PDr. h- is possible for the demonstratives, nor is h one of the PDr. phonemes. It might be possible to posit a reconstructed h- in demonstratives for a group of CDr. languages. How to go further remains at this point an unsolved problem. If for the IA languages from Aśoka down, h- is unexplained in genetic terms, or only with great difficulty, even with improbability, so explained, are all the IA forms instances of a common tendency in demonstratives? We do not yet know for Munda much beyond the analysis of Santali-Mundari; very specifically, we do not know whether this one Munda system is something explicable from Austroasiatic, or whether it is an innovation. Putting all together, we would be tempted to find an areal trait. But does it have its

origin simply in one of the language families, e.g. Munda? Or, if it is a universal of the linguistic area, seen from Aśoka to the present, and from Sind to Bengal and Ceylon, what are the specifics of its origination temporally and locally?

If this is as far as we can carry the research, we have achieved a piece of typology. To identify it as a 'universal' as exemplified in this area, gives it a name. It still leaves the historical question wide open, and that I must own we have not been able to push very far—we have only suggested several points at which further research might be able to find the direction of diffusion. This is perhaps disappointing, but it is typical of the difficulties of areal linguistics.

The earlier paper of which this is a revision went on to investigate in detail some of the CDr. series of stems. This need not be repeated here. However, my last words on the aberrant Brahui series dā ō ē may be summarized. The first two items, dā 'this' and ō 'intermediate', are now clearly to be regarded as borrowings, dā from Pashto, ō from Persian (in the archaic pronunciation found in Afghanistan-Baluchistan-India) or from IA Lahnda-Panjabi. The last item, ē 'remote', is to be linked with CDr., i.e. Kui-Kuwi, Pengo, and even Gondi, *e.

Another item, so far not brought into the picture at all, is a Malto item, which has in my earlier researches led me astray. This language has a series i u a. In addition, beside a there occurs na, which means usually 'that one [remote] who is present'. Not only are we forcibly reminded of the Santali qualifier n- 'near (within the zone of the demonstrative to which it is prefixed)', but Santali has na- for 'near within the remote zone'. The whole morph is undoubtedly a borrowing from Santali into Malto (the languages are contiguous).

Koṇḍa has four derivative bases from demonstrative stems with ni- and na- instead of i- and a- which are to be expected both within the Koṇḍa system and etymologically. They are: nini- 'this type or manner', nani- 'that sort of', niso- 'this much/many', naso- 'that much/many'. No explanation for this n- is at hand within Dravidian. This language is spoken in Koraput district of Andhra Pradesh. Neighbouring Munda languages (Sora, Gutob-Remo) may have some parallel phenomena, but analysis is not yet available. Zide (p. 272) has promised analysis for other Munda languages and comparative statement; when we have this, much more clarity is probable for the phenomena with which we are concerned.

TABLE

i	u	a	OTa. Ka. Kuwi (F.); (with u obsolescent) Ma. Koṇḍa Malto
i u		a	Ko. Tu. Pa.

i			a	Ta. To. Koḍ. Te. Kol.-Nk. Ga.
i	hu		a	Kuṛux
i	e/he		a	Pengo
i e			a	Gondi
i	e	a	o	Kui
i	e	he	hu	Kuwi (S.)
i	e u	he	hu	Kuwi (Israel)
dā	ō		ē	Brahui

Dravidian demonstrative bases
(from proximate to remote)

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NOTE

1. [The paper of which this is the revision was completed early in 1980; it was published in *IJDL, International Journal of Dravidian Linguistics*, 12.1-7 (January 1983; appeared in 1984). Since the areal data on which it was based have been entirely superseded by the Munda material to which I gained access only in 1980 (even though it was published in 1972), it has seemed unnecessary to reprint the *IJDL* paper. Some sections of it were utilized in the revision.]

CHAPTER XVIII

KANNAḌA KAMPA, TAMIL KAMPAN̲: TWO PROPER NAMES*

THE SANGAMA DYNASTY which founded the Vijayanagara kingdom had in its first two generations three men with the name Kampaṇṇa or Kampaṇa, viz., a brother and two sons of king Bukka I.[1] The two sons were differentiated as Kumāra (i.e., crown prince) Kampaṇṇa and Cikka (i.e. younger) Kampaṇṇa. The most famous of the three was the elder son of king Bukka, Kumāra Kampaṇṇa; he died circa A.D. 1375. A court scholar of this kingdom at about this time was the Vedic commentator Sāyaṇa, one of whose three sons was also named Kampaṇa.[2]

The name Kampaṇ(ṇ)a of the three members of the royal family, so to be transcribed from the Kannaḍa inscriptions in which it occurs, belongs to the South Indian Dravidian type of name formation in which a kinship term is honorifically added to the personal name.[3] The kinship term is one of those denoting individuals superior to EGO, in this instance *aṇṇa- 'elder brother'. I.e., Kampaṇ(ṇ)a consists of a personal name Kampa, plus the Kannaḍa form aṇṇa 'elder brother' or -aṇa, which is found in this name formation.

That indeed Kampa was the basic personal name of Kumāra Kampaṇ(ṇ)a results also from an examination of the Sanskrit poem composed by his wife Gaṅgādevī to celebrate his military exploits in a successful campaign against the Sultan of Madurai. It is entitled Madhurāvijaya or Vīrakamparāyacarita.[4] Nowhere in the poem, so far as it is preserved, is the prince called Kampaṇ(ṇ)a. In some dozen verses he is identified as Kampa-, compounded with some synonym for 'king, prince', e.g., Kamparāja-, Kampeśvara-, Kampendra-, Kampanarendra-, Kampamahīpati-, etc. In the colophons and the alternative title of the work he is Vīrakamparāya- 'hero-Kampa-king'.

However, in verse 34 of canto 2 he is called Kampana-, and a Sanskrit etymology is given:

ākampayiṣyaty ayam ekavīraḥ
saṃgrāmaraṅge sakalān arātīn
ity eva niścitya sa dīrghadarśī
nāmnā sutaṃ kampana ity akārṣīt

'The [king], being far-seeing, felt assured that this son would be a matchless warrior and would cause all his enemies to tremble [verb stem ā-kampaya-] on the field of battle, and he named him Kampana.'

JAOS, 105, 401-04 (1985).

The lady poet (or may we perhaps think rather of her pandit teacher?) was an accomplished Sanskrit scholar, and this verse is an echo of the epic passage *Mahābhārata* 2.4.19[f]-20 (Poona ed.):

kampanaś ca mahābalaḥ
satataṃ kampayām āsa yavanān eka eva yaḥ
yathā 'surān kālakeyān devo vajradharas tathā

'and the mighty Kampana, who, all by himself, ever made the Yavanas[5] tremble [verb stem kampaya-], as the thunderbolt-wielder Indra did the Kālakeya demons.'

The usual Kampaṇ(ṇ)a is not Sanskrit, and the author here Sanskritized it (and in a form that is suggestive of Telugu, with n rather than ṇ!) only because of the epic reminiscence, and to produce an etymology that we can hardly accept for it, whatever we may think of it as an etymology for the Sanskrit Kampana.[6]

What then is Kampa, and what is its etymology?

Two of the reference books on Tamil literature seem at first sight to indicate that some Kannaḍa speakers at least, in the year A.D. 1376, equated the name of the Tamil author Kampaṉ with Kannaḍa Kampa. T.P. Meenakshisundaran (1965, p. 103) says: 'a Kannada inscription from Mysore refers to *Kampadarāmāyaṇa*'. Zvelebil (1973, p. 209) has: 'a 14th Cent. Kannaḍa inscription form [sic] Mysore refers to *Kampadarāmāyaṇa*'; this seems to be a direct quotation from Meenakshisundran. Examination of the published inscription, however, makes it clear that the reading is not Kampada, but Kambada. The relevant portion of the inscription is (Rice, 1902; p. 53, inscription 77, Hassan Taluq): Kambada-Râmâyaṇada Nârâyaṇana makkaḷu . . . ; the translation (ibid., p. 25): 'the sons . . . of the reciter of Kamba's *Râmâyaṇa,* Nârâyaṇa'. 'Kamba' here reproduces in Kannaḍa phonemic terms the phonetics of the Tamil Kampa, i.e., [kamba]; Meenakshisundaran has apparently converted this into the conventional scholarly (rather than the Westernized phonetic) transliteration of the Tamil spelling, viz., kampa. Consequently the implication that one would be tempted to draw from the Meenakshisundaran-Zvelebil transcription, viz., an equation of Kannaḍa Kampa and Tamil Kampaṉ, is incorrect; these scholars have not, of course, made such an equation.

It may be useful however to probe a little further.

What can be said about the Tamil name Kampaṉ [kamban]? It is generally accepted that as the first element in the title of the Tamil epic *Kamparāmāyaṇam* (otherwise called *Irāmāvatārām*), it is the name of the author. Kampaṉ is also a name of the god 'Śiva in Kāñci' (Tēvāram 3240, as quoted by, e.g., Meenakshisundaran, 1965, p. 103, Zvelebil, 1973, p. 207). The collection of the Śaivite anthology Tēvāram is of uncertain date; Zvelebil (1973,

p. 186) says: 'at the beginning of the 10th Cent. A.D.', but elsewhere (1975, p. 134): 'at the beginning of the 10th or 11th cent. A.D., definitely before A.D. 1100', while Meenakshisundaran (1965, p. 130) puts it at 'the last part of the ninth and early part of the tenth century'. The general pattern of Hindu theophoric names[7] allows us to identify Kampa as Śiva in the attested personal names of Kampavarman̲ (the Pallava king of the 9th century). Kampamaṇiyan̲ (a commander of Rājarāja, 10th century), and possibly Kampan̲araiyan̲ (a Pallava chieftain of 8th-9th cent.).[8] We can go further and assume that the poet's name is derived from the god's name, as does Meenakshisundaran (1965, p. 103). This scholar should be quoted, as giving what seems to be a very good explanation for another origin that has been given in pre-modern times for the poet's name, as well as for a grammatical anomaly in the Kannaḍa inscription quoted above. Zvelebil (in his note referred to in n. 8) says: 'Another explanation derives the name from the flag-staff (*kampam*) in front of a temple: the child was born there of a Brāhman̲ adulteress, left abandoned, and brought up by a priest of the temple'. Meenakshisundaran: 'Anecdotes have grown around the name of Kampan̲. When that proper name has ceased to be current, these stories associated him with *kampam*, the pillar or stick. A proverb is current in the literary world that even a post in Kampan̲'s house will compose verses. Perhaps this is responsible for the Kannada form *kampada* [in the inscription; the genitive ending *-da* is found with nouns denoting non-humans] on the assumption that the stick, characteristic of Kampan̲, sang the verses'.[9] It is perhaps pertinent to add that the derivation of the poet's name from Kampan̲ = Śiva may have seemed in the past to many, as it has (to my knowledge) seemed to some scholars at the present day, to be implausible since the poet was devoted to Rāma rather than to Śiva; this, however, is hardly a good argument for doubting the derivation, and had no weight with such a good scholar as Meenakshisundaran. Moreover, he was able to quote (1965, p. 106) evidence from Kerala that the poet Kampan̲ was taken to be a 'birth' of Śiva: '. . . the following Malayalam anecdote. Kāḷi, guarding the Laṅka of Rāvaṇa, was requested by Śiva to depart. She was therefore not present to witness the *Rāmāyaṇa* war. To make up for this Śiva, born as Kampan̲, composed the *Kamparāmāyaṇam* consisting of the thirty-two dramas enacted even today as a part of the ritual during the annual festivals in the temples of Śiva in the northern part of Kerala'.

The god name Kampan̲ may be and has been etymologized. One who is not a Tamilologist should not be so presumptuous as to enter upon the much-discussed question of the relation between the two divine names at Kāñcīpuram, Ēkampa (Ēkāmra) and Kampa.[10] However, it should be said that Kampa as a god name can hardly be separated from the names of the three pillars at the Śiva temple at Kāñcīpuram, Veḷḷai Kampam, Kaḷḷa Kampam, and Nalla Kampam. It scarcely matters whether or not one agrees with Ramanatha Ayyar (1965, pp. 171-72) that prior to the 12th century there was only one pillar (kampam). The etymology of kampam 'pillar' is clear. It derives

from the Indo-Aryan group of etyma Vedic skambhá- 'pillar, post', Pali-Prakrit khambha-, and many modern Indo-Aryan forms such as Hindi khām, khambh, Gujarati khām, Marathi khãb;[11] considering the early occurrence of kampam in the Tamil records, it should have been borrowed from Middle Indo-Aryan, presumably Prakrit.

The developments, iconographic and theological, which led to this identity in name for pillar(s) and god at Kāñcīpuram, are most uncertain. It is perhaps pertinent that Śiva is in the Tamil country also known as Tāṇu, a derivative of another Indo-Aryan word for 'post', viz., Sanskrit sthāṇú-, Prakrit thāṇu-.[12] (It is recorded in Sheth's Prakrit dictionary that Prakrit thāṇu- also means 'Śiva'; Kittel's Kannaḍa lexicon records stāṇu 'post; Śiva', and tāṇu 'Śiva', but kamba only 'post'.) Whether Tāṇu as a name of Śiva has anything to do with 'post, pillar', as does Kampaṉ, or whether it characterizes the god as 'the unmoved one, the eternally chaste one',[13] as apparently Kampaṉ does not, is to me still uncertain. However, any future examination of the problem should surely take into account the occurrence of the two Indo-Aryan near-synonyms as Śiva names in the Tamil area.

To revert to the Kannaḍa name Kampa, with which we started our investigation—no etymology, apart from the unacceptable Sanskritic one connected with kamp- 'to tremble', kampana- 'trembling; causing to tremble', has so far as I can discover, ever been proposed. An equation with Tamil Kampaṉ, involving derivation from the Śiva name, is phonologically not at first sight admissible, since the Kannaḍa word for 'post, pillar' derived from Indo-Aryan skambhá->khambha- is kamba.[14] Nor does search among the Dravidian borrowings from Indo-Aryan find any parallel sets in which an Indo-Aryan nasal plus voiced stop (e.g., mb or mbh) is represented in Tamil by nasal plus voiced stop (e.g., [mb], spelled mp), but in Kannaḍa by nasal plus voiceless stop (e.g., mp) rather than nasal plus voiced stop (e.g., mb).[15] It is with great reluctance then that we must turn away from what otherwise would be a tempting equation of Kannaḍa Kampa and Tamil Kampaṉ. Kampa is still without etymology.

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NOTES

1. Filliozat 1971.

2. Emeneau and Kushalappa Gowda 1974, for the etymologies of the name Sāyaṇa and the names of his other two sons Māyaṇa and Siṅgaṇa.

3. Emeneau 1978, pp. 124-26.

4. I am indebted to Dr. K. Kushalappa Gowda for calling to my attention this book and especially verse 2.34.

5. Gaṅgādēvī (and/or her instructor) must have taken pleasure in this epic word, since it is the term conventionally applied in late Sanskrit to Mohammedans, including those of the Vijayanagara period.

6. Mayrhofer, s.v. kampanaḥ, records some suggestions, none of them being relevant here. He refers to Stein's article (1933-35); the extensive material collected in the second part of this article ("Kampaṇa") concentrates on kampaṇa- as a common noun. The suggestion by Filliozat, 1971, p. 59, that Kampaṇ(ṇ)a in all the inscriptional occurrences and Kampana in the poem are a 'deformation' and that the reading Kempaṇṇa in one inscription is the only correct one, seems fanciful.

7. Emeneau, 1978, pp. 114ff.

8. These names in Zvelebil, 1975, p. 181, n. 96. It would be tempting to recognize Kampa = Śiva in the dedication to Kampahareśvara (= Śiva) of the temple at Tribuhvanam (Tiruppuvanam, near Kumbakonam, Tanjore District) by the Chola king Kulottunga III, circa A.D. 1212; but such a derivation is unknown to Sarkar 1974, a monograph on this temple.

9. Zvelebil, loc. cit.: 'Another version explains the name as the boy with a stick (*kampu*) in his hand, watching a field of *kampu* (grain)'; he characterizes this as an absurd story.

10. For the non-Dravidianist it should be pointed out that Ēkampa, Ēkamba, Ēgamba are variant transcriptions of one and the same Tamil form, that it seems to be Prakritic and has been Sanskritized long ago as Ekāmra, and that in the Sanskrit play Mattavilāsaprahasana by Mahendravikramavarman a Prakrit passage has Ēaṃvva. The very difficult problem of the relationship between all these forms and Kampaṉ = Śiva has been elaborately discussed by Ramanatha Ayyar 1965 and Shulman 1979. The former seems to find as follows. The god-symbol of the central shrine is nowadays referred to as Ēkāmranātha or (popularly) Ēkāmbaranātha. This reference to a mango tree (Sanskrit āmra > Pali-Prakrit amba-) appears as Ēkāmra in literature (Periyapurāṇam) first in A.D. 1133-34, and in an inscription first in A.D. 1249. Previously (e.g., in A.D. 1069) only Ēkampa was found. Both are found in inscriptions up to A.D. 1406, and after that only Ēkāmra. He seems to find no difficulty in analysing Ēkampa as ē plus kampa, and in interpreting ē (*DEDR* 870 = *DED* 739) as 'lofty': (p. 163) 'its aptness seems to be complete in view of the fact that Sundarar [Cuntarar; the Śaivite saint of the 'end of the 8th cent. or beginning of the 9th cent. A.D.'—the dating is from Zvelebil, 1975, p. 132] uses the epithert *periya* (= big or tall) to *kambam*'. However, he says that there is no confirmatory evidence for this interpretation, and quotes from a letter from the late S. K. Chatterji the suggestion that the origin might have been Sanskrit eka-skambha- > Prakrit ea-khambha- 'only pillar'; this on the whole seems less likely to me. Shulman's article seems to add nothing to Ramanatha Ayyar's study of the names; he is more interested in connecting the somewhat late-appearing mango with a more ancient Murukaṉ myth involving a mango tree.

11. *DBIA*, entry 77; Turner, 1966, entry 13639. Classical Sanskrit has instead stambha- (ibid., entry 13682), but derivatives of this also are found in Pali-Prakrit and in modern Indo-Aryan.

12. *DEDR* App. 44 = *DED* 2780. Turner 1966, entry 13750; (he records also a crossing of this word with skambhá-, which yields Prakrit khāṇu- 'post', adj. 'motionless'). Through the kindness of Professor and Mrs. George L. Hart III, I know of a temple near Sucindram (Nagercoil) dedicated to Tāṇumālaya(p)perumāḷ "the great god (perumāḷ) Śiva (Tāṇu) plus Viṣṇu (Māl) plus Ayyanār (Aya)'.

13. O'Flaherty 1973, passim, esp. p. 226.

14. All the Dravidian derivatives from this Indo-Aryan source, as given in *DBIA*, entry 77, have -mb- (including the Tamil-Malayalam items with spelling -mp-, which represents [mb]) or a derivative from -mb- (Kota and Toda -b-, Tulu -mb- > -mm-).

15. Kumaraswami Raja 1969 does not give us a lead, since he deals only with Dravidian material, and not with borrowings from Indo-Aryan.

CHAPTER XIX

SOME NOTES ON DRAVIDIAN INTENSIVES*

REDUPLICATION of forms in the Dravidian languages has not yet received full treatment, either descriptive or comparative-historical. Nor does it seem probable that the latter will be possible in any productive sense until full descriptive treatments of at least a majority of the languages are available.

It is already evident, however, that several different semantic categories are involved in this type of morphology, two important ones being distribution ('street after street', 'ten each', 'each by itself') and intensity ('high degree', 'excellence', 'emphasis', 'very'). A third category which involves reduplication consists of expressives (onomatopoetics). In this latter category it has already been shown that the morphology sometimes has instead of identical reduplication some substitution for part of the basic form (e.g. Ta. *kaṭapaṭāv-eṉal* 'hullabaloo') (Emeneau 1969: 274-99). A semantic category which is always expressed by reduplication with substitution is that of the 'echo-words' ('A and the like', 'A etc.'; the formation: C$\breve{V}$X g$\breve{i}$X) (Emeneau 1938: 109-17).

Pending the desirable full treatment, which is probably realizable only in the distant future, this paper calls attention to some details of the intensive formation.[1] No full treatment is yet at hand for any of the languages. The dictionaries are hardly exhaustive, and the etymological dictionary (DED, etc.) did not succeed in recording everything that was available. Kittel's description of the formation in Kannaḍa is perhaps as good as any, with numerous examples (from the literature) divided by 'parts of speech'; e.g. *huḷi huḷi* 'very sour (of buttermilk)', *heccu heccige* 'more and more, excessively', *beḷa beḷagu* 'excessive lustre', *piri piridu* 'that is very large', *kappa kappane* 'very black'. The *Tamil Lexicon* contains many examples; e.g. *veḷuveḷu* 'to become white, pale', *veḷu-veḷuv-eṉal* 'extreme whiteness or paleness', *veḷuveḷuppu* 'whiteness, pallor' (: *veḷ* 'white', *veḷu* 'to become white, pale'); *kaṟukaṟu* 'to become very black' (: *kaṟu* 'to grow black'); *tuṭituṭi* 'to be in a great flurry, fret and fume' (: *tuṭi* 'to be in great flurry or agitation, tremble, palpitate'); *cilircilir* 'to get goose-skin from intense emotion' (: *cilir* 'to bristle as the hair on the body'); *kuṟaikuṟai* 'to be confused' (: *kuṟai* 'to be troubled'); *karakara* 'to feel irritation (in eye, throat)' (: *kari id.*). Telugu has the formation; e.g. *ceṟaceṟal-āḍu* 'to be angry or furious'; *koṟakoṟa* 'anger; angrily', *koṟakoṟal-āḍu* 'to be angry, have an angry look'. Examples are found in the descriptions of the non-literary languages of the center and

Festschrift for Henry Hoenigswald on the occasion of his seventieth birthday, pp. 109-13 (1987).

the north, but there is no satisfactory description, and such an example as Kur. *bilbilrnā* 'to sparkle, twinkle' (: *bilcnā* 'to shine, glitter, sparkle'), Malt. *bilbilre* 'to shine brilliantly', alongside Ta. *veḷuveḷu*, etc. (quoted above), Ma. *veḷuveḷa* 'very white' (: *veḷu-* 'to be white'), can hardly be evaluated.

Kittel defined the intensive reduplication in Kannaḍa as meaning: "to express high degree, excellence, intensity or emphasis" (1903: 302ff., §§ 303.1 (d), 2(a), 305(a), 307(a)), also using 'very' commonly in his translations of examples.[2] Arden (1934: 283, § 579(v)) on Tamil says: "the first part is reduplicated to intensify the meaning, as *naṭunaṭuṅku tremble greatly*, a reduplicated form of *naṭuṅku tremble*". Such forms in the *Tamil Lexicon* are sometimes translated with an indication of this meaning, sometimes not. Of the several forms connected with *veḷu* 'to become white, pale' that were quoted above, *veḷuveḷu* is given with the same meaning as *veḷu,* but *veḷu-veḷuv-eṉal* is defined as 'extreme whiteness or paleness'. Of the other forms quoted above, *kaṟukaṟu* 'to become very black' is so defined as contrasted with *kaṟu* 'to grow black'; but for none of the other reduplicated forms is there given a meaning that explicitly includes 'intensity'. Similarly with most of the other reduplicated forms that could be quoted; the simplex form and the reduplicated form are usually given identical or almost identical meanings, and we must conclude, by extrapolation from the few examples in which the explicit Kannaḍa meaning of 'intensity' is paralleled, that the compilers of the *Tamil Lexicon* have been somewhat inexact in the meanings they give.

Once the intensive formation is established, it is possible to use it as the basis for some formations whose meaning is 'maximal intensity'. The difficulty caused by incomplete recording of forms and defective dictionary meanings is particularly evident here. Very few contrasting pairs of forms are available in the material at hand. Entry 1 below, Ta. *puttapputiya, puttam-putiya* 'brand-new, very recent' (: *putu, putiya* 'new'), establishes the meaning; similar are entry 4 Ta. *veṟṟa-veṟitu* 'absolute worthlessness', entry 12 Ta. *taṉṉan-taṉi* 'quite alone', entry 7 Ka. *kaṭṭakaḍe*, Te. *kaṭṭakaḍa* 'the very end'; for none of these is there recorded an intensive formation (**veṟaveṟitu*, etc.). A few examples have contrasting pairs, but in no case is there recorded contrasting meaning; e.g. entry 14 Ta. *veḷuveḷu* 'to become white, pale', *veḷu-veḷuv-eṉal* 'extreme whiteness or paleness': *veḷḷa-viḷar* 'to become very white (as a washed cloth)' (: *viḷar* 'to become pale, whiten' = *veḷu*); see also entries 3, 5, 15, 16, 17.

Clear examples yield the following statement of formation: in C^1VC^2V of the initial member of the reduplicated form, C^2 being a coronal (Schiffman 1975: 69-85; 1980: 101-110) consonant (but not *c*),

voiced stops *d ṟ ḍ*→voiceless stops *tt ṟṟ ṭṭ* (in Tamil-Malayalam the voiced stops are written *t ṟ ṭ*);

nasals *n ṇ* →*nn ṇṇ*;

lateral *ḷ* →*ḷḷ*.

The largest number of examples has been recorded for Tamil. There are

examples also for Kannaḍa, Telugu, and Kota. Some etymological groupings are found in the material, but the almost complete certainty that the material at hand is only a sample makes it impossible to attempt comparative-historical statements which would settle such questions as whether we can reconstruct the formation for South Dravidian (or general Dravidian?), or whether there has been extensive borrowing from one language of origin (e.g. Tamil).

The entries for the 'maximal intensive':

**d→*tt*

(1) Ta. *puttapputiya, puttamputiya* 'brand-new, very recent' (: *putu, putiya* 'new') (3511/4275)

(2) Ka. *tuttatudi* 'the very point or end' (: *tudi* 'end'; cf. Ta. *tuti* 'point', Te. *tuda, tudi* 'end') (2716/3314)

(3) Ka. *motta-modalu* 'the very beginning, at the very first' (: *moda-modalu, modalu modalu* id., *modal(u)* 'state of being first') (4053/4950)

**r̲→*r̲r̲*

(4) Ta. *ver̲ra-ver̲itu* 'absolute worthlessness' (: *ver̲itu* 'uselessness, futility', *ver̲u* 'empty, useless, etc.'), Ko. *veṭa· ver* 'mere, unmixed, vain' (: *ver* id.) (4538/5513)

**ḍ→*ṭṭ*

(5) Ta. *naṭṭa-naṭu* 'the very middle' (: *naṭu* 'middle'), Ka. *naṭṭa-naḍuve* 'in the very middle' (: *naḍu-naḍuve id., naḍu* 'middle', adj. *naṭṭa*), Te. *naṭṭa-naḍumu* 'the very middle' (: *naḍu* 'middle', adj. *naṭṭ-*), Ko. *naṭa· naṛv* 'very center' (*naṛv* 'middle, center') (2959/3584)

(6) Ta. *neṭṭa-neṭumai* 'great length, excessive tallness or height' (: *neṭu* 'long; to be long, tall', *neṭumai* 'length, tallness, height', *neṭṭam, neṭṭu* id.) (3099/3738)

(7) Ka. *kaṭṭakaḍe* 'the very end; at the very end, at last' (: *kaḍe* 'end, last'), Te. *kaṭṭakaḍa* 'the very end, the very last place or point; farthest, hindmost, the very last' (: *kaḍa* 'end, extremity') (929/1109)

(8) Ko. *ceṭ ceyṛ* 'bad smell' (: *ceyṛ, ceṭ* id.; cf. Ta. *ceṭi* 'stench', Tulu *seḍi* 'strong smelling', *śeṭṭuni* 'to decay') (1614/2760)

(9) Ko. *muṭa· muṛmuṛṇ* 'without any reason' (: *muṛmuṛṇ* id., cf. Koḍagu *muṇḍate* 'for no reason') (4037/4928)

(10) ? Ta. *veṭṭaviṭi* 'break of day, early dawn' (: *viṭi* 'dawn; to dawn', *veṭṭam* 'light', *veṭṭa* 'clear, plain'; cf. *veṭṭa-veḷi* 'open plain', *veṭṭa-veḷiccam* 'broad daylight'). Perhaps a compound with *veṭṭa*. (4504/5475)

**n→*nn*

(11) Ta. *in̲n̲-in̲i* 'now, without a moment's delay' (: *in̲i* 'now') (351/410)

(12) Ta. *tan̲n̲an-tan̲i* 'quite alone' (: *tan̲i* 'solitude; to be alone') (2612/3196)

**ṇ→*ṇṇ*

(13) Ta. *aṇṇaṇi* 'in close proximity' (: *aṇi* 'near') (69/120)

**ḷ→*ḷḷ*

(14) Ta. *veḷḷa-viḷar* 'to become very white (as a washed cloth). (: *veḷuveḷu* 'to become white, pale', *veḷu-veḷuv-en̲al* 'extreme whiteness or paleness', *viḷar* 'to

become pale, whiten', *veḷ* 'white', *veḷu* 'to become white or pale'; cf. Ma. *veḷuveḷa* 'very white', Kur. *belbelrnā* 'to have an unusual or morbid whiteness of the skin, be an albino', *bilcnā* 'to shine, glitter, sparkle', *bilbilrnā* 'to sparkle, twinkle', Malt. *bilbilre* 'to shine brilliantly') (4524/5496)

(15) Ta. *kuḷḷa-kkuḷir* 'to be intensely cool and refreshing' (: *kuḷir* 'to be cool, refreshing'; cf. Ma. *kuḷukuḷu* 'intense cold', Ko. *kuḷkuḷ in-* 'to feel cool, feel calm and peaceful') (1523/1834)

Two other sets of forms may belong here, with rules **r→*nn* and **l→*nn*

(16) Ta. *peṉṉam-periya, peṉṉam-perutta* 'very large' (: *periya, perutta* 'large', [Caldwell quoted above] *periya periya* 'very great'; cf. Te. *penu* [before consonant], *penn-* [before vowel] 'large') (3613/4411)

(17) Ta. *puṉṉam-pulari* 'early dawn' (: *pulari* 'dawn', *pular* 'to dawn', *puṟ-pull-eṉal* 'break of day'; cf. Malt. *pulpulre* 'to shine through whiteness') (3531/4305)

No instances have been found involving non-coronal consonants (labial, velar), nor the palatal *c*. The following unique set of forms is very puzzling, but may possibly belong here.

(18) Ta. *cekka-cciva, cekkañ-ceku* 'to be deep red', *cekka-ccivēr-eṉal, cekka-ccevēr-eṉal* 'deep redness' (: *civa* 'to redden', *civēr-eṉal, cevēr-eṉal, cekkam* 'redness', but no **ceku!*) (1607/1931)

Two sets in Kannaḍa and Telugu have items in which **d→*ṭṭ*, instead of **d→*tt*. In one set Kannaḍa has both forms, the expected **tt* having been given above as entry 2. Nothing further of this kind has been found.

(19) Ka. *tuṭṭatudi* 'the very end or point' (cf. *tuttatudi* in entry 2), Te. *tuṭṭatuda* 'the very end or extremity (2716/3314)

(20) Te. *moṭṭa-modalu* 'the very beginning', *moṭṭa-modaṭa(n)* 'at the very beginning' (: *modalu* 'beginning', *modaṭa(n)* 'at first, in the beginning'; cf. Ka. *motta-modalu* in entry 3) (4053/4950)

Several formations which show some similarities to those already treated are to be analyzed as compounds. Entries 21 to 23 have nothing to do with 19 and 20 in spite of *ṭṭ* in the first elements.

(21) Ta. *kaṭṭu-kkāval* 'strict guard', Ko. *kaṭ-ka·vl* 'close watch'. The first element is Ta. *kaṭṭu* 'firmness, strength' (962/1148); *kāval* 'guard, watching' (1192/1416). Kota has undoubtedly borrowed from Tamil.

(22) Ka. *koṭṭa-kone* 'extreme point', Te. *koṭṭa-kona* 'the very end or extremity'. **koṭṭu* 'tip, point, crest' (1704/2049); **konay* 'tip, point, extremity' (1807/2174).

(23) Ta. *paṭṭa-ppakal,* Ma. *paṭṭā-pakal,* Te. *paṭṭa-pagalu* 'broad daylight, midday', To. *oṭ oxol* 'broad daylight' (used in song). **pakal* 'day(time)' (3151/3805); with **paṭṭa-,* cf. Ko. *paṭa·r in-* '(country) becomes fully light at dawn'. The Toda form has the earmarks of a borrowing from Kannaḍa

(Badaga dialect), i.e. **p-*>Ka. *h-*>To. *ϕ*, but the source form has not been recorded so far.
(24) Ta. *cin̲n̲añ-ci̲r̲iya* 'very small'. The *Tamil Lexicon* calls this reduplication, but it is rather a compound of *cin̲n̲a* (2135/2594) and *ci̲r̲iya* (1326/1594), both 'small'; the compound is not in the etymological dictionary.
(25) Te. *ni̲r̲r̲a-nīlugu* 'to be very haughty'. Te. *nīlugu* 'to be conceited' (3059/3692); for *ni̲r̲r̲a-*, cf. *ni̲r̲u* 'very, much' (3049/3682).

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NOTES

*In this volume honoring Henry Hoenigswald on his 70th birthday, I add my homage to one who has notably advanced comparative-historical linguistic methodology. My paper illustrates how abortive such a study may be when we lack adequate descriptive data, but also, I hope, that to try to point out a direction for further research may promise future profit.

1. Most of the data in the paper come from Burrow-Emeneau (1961), *A Dravidian Etymological Dictionary* (DED), its *Supplement* (DEDS), and the 2nd edition revised (DEDR). A few items have been added from other sources, especially Kannaḍa items from Kittel's grammar and dictionary. The paper would have been bettered by consultation with speakers of the languages, but this could not have been easily accomplished.—Each of the numbered entries has at the end a pair of numbers, the first a reference to DED and DEDS, the second to DEDR. —Abbreviations of language names: Ta.=Tamil, Ma.=Malayalam, Ko.=Kota, To.=Toda, Ka.=Kannaḍa, Te.=Telugu, Kur.=Kuṛux, Malt.=Malto.

2. Caldwell earlier had mentioned the construction in his treatment of the superlative of adjectives, as 'the very primitive plan of doubling of the adjective itself—e.g. [Ta.] *periya periya*, very great' (1913: 317).

CHAPTER XX

THE RIGHT HAND IS THE 'EATING HAND': AN INDIAN AREAL LINGUISTIC INQUIRY*

THIS PAPER is presented to David Mandelbaum with the greatest admiration for his broad and deep interpretations of so many aspects of the culture of India, and with gratitude for the great pleasure and profit that we shared in our joint Nilgiri experience in 1937-38[1]. My areal linguistic studies have been founded, in a sense, on our common interest at that time in the possibility of defining culture areas within the subcontinent. This paper is the outcome of an attempt at semantic analysis within that framework.

§1. Of the three, or probably four or even five, major ways of eating,[2] that which involves the use of the hands alone without implements is possibly one of the most usual worldwide (that is, in aboriginal pre-Western-influenced days). It may be expected that, given some predominance of right-handedness in mankind, in this method of eating the use of the right hand for inserting the food in the mouth would also predominate. That this should become prescriptive is by no means to be taken for granted, since eating aided by a knife in the right hand to cut bite-size fragments off the food must usually, given righthandedness, involve or have involved handling the food with the left hand, and the use of knife and fork has resulted in a European (cum British) norm of putting food into the mouth with fork held in the left hand, as distinguished from the American norm of using the fork held in the right hand.

§2. A prescriptive rule that food should be put in the mouth with the right hand only is well-known for certain cultural areas, viz. the Indian subcontinent and the contiguous Moslem Near East. In both it is not simply a matter of predominant righthandedness (though it cannot be ruled out that originally this may have been an important factor). The matter is culturally more complicated, in that there is emphasis in both areas on a strict separation of functions for the two hands, the left being used for body-cleansing, especially after excretion, and the right for eating. Well-known is the Near Eastern punishment of cutting off the offender's right hand; he is thereby shamed since he must use the same hand for both functions.[3] Muslim practice and attitude in this matter spread far from the Near East proper, into Africa, Indonesia,[4] the Soviet Union in Asia, and particularly the Indian subcontinent, where Pakistan and Bangladesh are officially Muslim in religion and the population of the Republic of India has a very large Muslim component.

*Dimensions of Social Life: Essays in Honor of David G. Mandelbaum, pp. 263-73 (1987).

§3. However, for the Hindu population of India this rule is only part of the very pervasive and complex cultural matter of ritual pollution and purity. This is basic in the organization of Hindu society and in the regulation of the daily life of the subdivisions of that society and the individuals within those subdivisions. No further exposition is needed here; it is central in all anthropological accounts of Hinduism, and one need only refer to David Mandelbaum's chapter 11 of *Society in India* (1970: 192-205). As he lucidly says there (p. 195): "It is not only people who are graded on a scale of pollution and purity. The sides of the body, for example, have different degrees of pollution and purity. The right side is the more pure. The right hand is used in eating rather than the left which is used for more menial tasks, as in washing the body after defecation." That this rule is observed at all levels of this complexly hierarchical society need not be proved; it is abundantly exemplified in Mandelbaum's account, drawn from the reports of observers of many social groups at many periods.

That this strongly stressed cultural trait should be reflected in language would not be surprising. And indeed there is a body of relevant data in the dictionaries and vocabularies, but no study has previously been made, and there is (so far as I know) no mention of it in the anthropological literature.

§4. Dravidian India presents a considerable body of the data that have been recorded so far. These may be examined against the background of what Dravidianists would take to be the normal words for the right hand and the left hand.

Terms for "right hand" are in the southern languages and one or two others derived from **val* "strong; strength" (*DED* 4317/*DEDR* 5276): Tamil *vala-kkai, valaṅ-kai,* Malayalam *valaṅ-kai,* Kota *val kay,* Toda *paṣ koy,* Koḍagu *balate kay,* Kannaḍa *bala key/gey,* Tulu *balata kai,* Telugu *valā cēyi,* Parji *vela key.*

For "left hand" similar combinations are found ending in **kay* "hand", the first member being derived from **iṭay, *iṭam* "left (side, hand, etc.)" (*DED* 381/*DEDR* 449):[5] Tamil *iṭai, iṭam,* Malayalam *iṭam, eṭam,* Kota *eṛ,* Toda *öṛ,* Koḍagu *ëḍate,* Kannaḍa *eḍa,* Tulu *eḍa, damma, datta,* Telugu *ḍā-, dā-, eḍama,* Kolami *edama* (recorded by Hislop;<Telugu), Naiki of Chanda *ḍākiyan,* Gondi *ḍema.* The Telugu forms present problems. *eḍama* is the modern form, appearing in the literature from the thirteenth century on; the expected metathesized form **ḍema* does not appear in this language, but *ḍema* is recorded for the Gondi dialects of Adilabad and Sironcha (south-western dialects).[6] A metathesized form **ḍē-* is expected in Telugu, but instead *ḍā-, dā-* appear in the literature down to the fifteenth century (*ḍ->d-* between the eleventh and thirteenth centuries); *ā* is still unexplained (but one may compare Tulu *damma, datta* with *a* in the first syllable).[7]

These terms for right and left hand are presumably to be regarded as representative of general Dravidian (? proto-Dravidian). Instances of terms based on the cultural trait in which we are interested, or of terms borrowed

from Indo-Aryan (or in the case of Brahui, from Persian) are either demonstrably or presumably secondary.

§5. Examination of Tamil shows that there is a colloquial displacement of the terms for "right hand", which are those found in the literature, by *cōṟṟu-kkai*. This form is given in the *Tamil Lexicon*, but without any literary attestation; it also records *cōṟṟu-kai*. These have a phonological feature, *ṟṟ*, that is not to be expected in any colloquial form, and in fact the colloquial form that has been heard is (as expected) *cōttu-kkai*.[8] The first member of the compound is the oblique stem of *cōṟu* "boiled rice" (*DED* 2360/*DEDR* 2897), here used as attribute of the following noun; the compound means "the food hand". For "left hand" the *Lexicon* records *pī-kkai, pīccāṅ-kai, pīccai-kkai,* all meaning originally "the excrement hand" (*DED* 3455/*DEDR* 4210). The second has been heard paired with the colloquial *cōttu-kkai*. There is in the record also Malayalam *cōṟṟu-kai* "right hand", presumably a colloquial form. Considering the position of this language as a late off-shoot from Tamil, a unitary origin should be thought of for these "right hand" terms in these two languages.

Tulu also, according to Männer's dictionary, which has no indication of the dialect attribution of any of its items, has *picca, piccè* "left hand", i.e. "excrement hand". This is geographically a "southern" language, and some relationship of these forms with the Tamil terms for the left hand must be posited, although no exact statement can yet be made.

§6. For "right hand" Telugu is recorded as having *vala cēyi*. This, in fact, is the old literary term. By the thirteenth century, in the author Tikkana, it is beginning to be displaced by *kuḍi cēyi*, and by the fifteenth century (the author Srīnātha) the latter is the only term found. It is the only modern colloquial form. Although modern speakers are not aware of the etymological origin of this term, it is to be related to the verb *kuḍucu* "to eat, drink, suck, enjoy, experience, suffer" (*DED* 1378/*DEDR* 1654). This verb in South Dravidian is **kuḍi* "to drink", which in some of the languages (but not in Kota or Toda) is in general use down to the present. In Telugu, "to drink" must have been the earliest meaning, then extended to "to eat",[9] and then metaphorically to "to enjoy, etc.". The "right hand" term *kuḍi cēyi*, then, originated as "the eating hand". The verb *kuḍucu* was replaced by *tinu* "to eat" (*DED* 2670/*DEDR* 3263) and *t(r)āgu* "to drink" (*DED* 2593/*DEDR* 3174), in about the fourteenth and fifteenth centuries, except for the vulgar and taboo use *maḍḍa k/guḍu-* "to suck the penis", which is a survival of the general meaning "to suck (e.g. breast, teat)".[10] This general loss of the verb left *kuḍi cēyi* "right hand" practically isolated, and resulted in popular loss of awareness of the etymology. It becomes an obvious etymology, however, upon examination of the following group of data.

§7. Of the languages which are to be roughly classed as Central Dravidian, the following have terms for "right hand" which contain forms that are clearly related to the verb **tin-* "to eat", and which mean originally "the

eating hand": Naiki of Chanda *tina kī*, Parji *tinda key*, Gadba (Ollari) *tiyan ki*, Gondi (dialects of the south—Adilabad, Sironcha of Chanda, Muria, Maria, Koya) *tina k/gay*, *tinaṇ kay*, *tindana kay*, etc., Pengo *tina key*, Manḍa *tina ki*, Indi *tina ki*, Kui *tini kaju*, Kuwi *ṭiʔini kiyu* (see §8), Kuṛux *tīnā xekkhā*, Malto *tina qeqe*. Several problems are presented which admit of only partial solution.

§8. These forms derived from the verb **tin-* are not reconstructable *prima facie* to a proto-form. Several of them are verb forms labelled "relative participle", "verbal adjective", or the like (meaning: "who eats", "with which he eats", etc.), being formed differently in the different languages: Gadba (Ollari) *tiyan* (present-future or indefinite; *tiy-an*); Kui *tini* (future; *ti-ni*); Gondi (Muria) *tindana* may be the non-past adjective, although the suffix is given (e.g. for Koya) as *-āna*; Parji *tinda* may be related to the future relative participle *tindan* (*tind-an*), but deletion of final *-n* is unexplained. Kolami has a continuative verbal adjective, which for this verb would be *tina*. Although this language does not have **tina ki·* in the earlier record (but recently *unna kiyy* has been recorded; see §9), several languages have what seem to be corresponding forms, though the languages are not described as having verbal adjectives of this type: Gondi (Koya) *tina gay*, Pengo *tina key*, Manḍa *tina ki*, Indi *tina ki*;[11] Kuṛux *tīnā*, Malto *tina* may also be corresponding forms.

The Kui future relative participle *tini*, and also Pengo *tini*, are to be analysed as having the future (non-past) suffix *-n-* followed by the adjective suffix *-i*, i.e. *ti-n-i*. The closely related language Kuwi also should have *tini* or *tiʔni*, which have been recorded in the field, though *tiʔini* and *ṭiʔni* have also been recorded, and the form given in Israel's grammar (1979) is *ṭiʔini*. It must be noted that the short stem *ti-* actually appears as *tiʔ-* before vowels in Israel's description. The largest verb class in Kuwi has as future suffix *-in-* (rather than *-n-*). It appears that *tiʔini* "right" has been formed analogically as if it belonged to this class, i.e. *tiʔ-in-i*. The form given by Israel, *ṭiʔini* (as well as *ṭiʔni*), has retroflex *ṭ* by analogy with the retroflex initial *ḍ-* of the borrowed Indo-Aryan word for "left", **ḍēbri*, which appears in this language as *ṭēbri*; the complicated end result is: *tiʔini*, **ḍēbri*→*ṭiʔini*, *ṭēbri*, with voicelessness from *tiʔini* and retroflexion from **ḍēbri* (for the Indo-Aryan form, see §11).

Parji has both *vela key* and *tinda key*; the grammar gives no indication of difference of usage.

Kuṛux and Malto do not have the verb **tin-* "to eat", using instead **mōk-* (*DED* 4212/*DEDR* 5127) and **uṇ-* (*DED* 516/*DEDR* 600). That they originally had **tin-* is evidenced by their still having the transitive *tind-* "to feed by hand"; the derivation of "right hand" is obvious.

§9. Three of the central languages are still unrepresented in the lists given for "right hand". For Kolami my earlier work does not have the item; it is now to be found in *Pat.* (1973: 27): *unna kiyy*. For Gadba (Ollari)

tiyan ki was the earlier recorded form; the recent publication of Koṇekor Gadaba by Peri Bhaskara Rao (1980) records *uṇan kiy*. The Konḍa grammar has no term, but *uṇer kiyu* was recorded (so Bh. Krishnamurti by letter). These three terms have forms derived from **uṇ-* "to drink", which (like Telugu *kuḍucu*) in some of the languages has also the extended meaning "to eat" (e.g. Gadba, Konḍa, Kui, Kuṛux). Since we do not yet have well-structured accounts of the meanings of **tin-* and **uṇ-* in the Dravidian languages in this area, it is impossible even to guess why **uṇ-* was favoured over **tin-* in generating terms for "right hand" in these three languages. In Kolami the form is the regular verbal adjective; the forms in the other two languages are not related to their verbal adjectives.

§10. In the same area in which the Central Dravidian "eating hand" terms are found, viz. the contiguous mountainous areas of eastern Madhya Pradesh, Orissa (Bastar, Koraput, etc.), and northern and northeastern Andhra Pradesh, there are found languages of another family, Munda or, more specifically, South Munda.[12] For several of these languages information is at hand that the right hand is designated "the eating hand", forms being derived from **jom* 'to eat' and **ti* 'hand': Kharia (P). *jɔnɔm ti*ʔ, Remo (Boṇḍa) *su-sum = ti*, Gtaʔ (Ḍiḍei) *n-coŋ = ti*. The words for "right (as opposed to left)" in Munda and (so far as I can judge) Austroasiatic in general are derived from **etom* (*ɛtɔm*). An example in South Munda is Gutob *etom titi*. In North Munda (north of the area we are specifically interested in) it is recorded in Pinnow (1959) that several of the languages have two forms for "right hand", one derived from the word for "right", one meaning "the eating hand": Santali *ɛtɔm ti, jɔmti/jɔjɔmti*, Mundari-Ho *ɛtɔm ti*ʔ, *jɔm ti*ʔ; for Birhor only *jomti* seems to be recorded.

It is also recorded in Pinnow (1959) that two of the North Munda languages have for "left hand" terms that mean "excrement hand": Santali *i'j ti*, Mundari *i'j ti*ʔ.

§11. The Indo-Aryan words for the right and left hands are in general derived from Sanskrit words.

For "right hand" most of the languages have derivatives of Sanskrit *dakṣiṇa-* or *dākṣiṇa-* (related, of course, to Latin *dexter*; *CDIAL* 6119, 6251), e.g. Hindi *dahinā, dāhinā, dāhnā, dā̃yā*. Panjabi *sajjā*, Sindhi *sājo* are derived from Sanskrit *sajya-* "strung (of a bow), ready" (*CDIAL* 13095); Marathi *ujvā*, Halbi *uja* are derived from Sanskrit *ṛju-* "straight, honest" (*CDIAL* 2448).

"Left hand" is somewhat more complicated. Some of the languages have forms derived from Sanskrit *vāma-* (*CDIAL* 11533), e.g. Oriya *bā̃*, Hindi *bā̃wā̃, bāyā̃*. A number of the languages, especially of the northwest, have forms derived from Sanskrit *kharva-* "imperfect" (*CDIAL* 3832), e.g. Panjabi *khabbā*. Some languages, especially of the center, have forms of uncertain origin, for which *CDIAL* 5539 reconstructs **ḍavva-, *ḍāva, *ḍivva-, *ḍēvva-, *dēva-, *dēvva-*, etc.; e.g. Hindi *ḍāwā, ḍibbā, dewrā, debrā*, Marathi *ḍāvā*,

Nepali *ḍebre, debre,* Oriya (the Desia dialect spoken in the mountainous area in which we are interested) *ḍebri,* Halbi *ḍebri.* It has been proposed that these forms originated from Dravidian forms of the type seen in Telugu *ḍā-, dā-* and Gondi *ḍema* (listed in §4 as representing **iṭay*). Certainly the central Dravidian languages have for "left (hand)" borrowings from Indo-Aryan: Naikṛi (dialect of Kolami) *ḍāva*, Parji *ḍebri*, Gadba *ḍebri*, Gondi (e.g. Danḍāmi Maṛia) *ḍāvā*, Konḍa *ḍebra*, Pengo *ḍeba,* Manḍa *ḍeba,* Indi *ḍēba*, Kui *deba*, Kuwi *ṭēbri* (see §8), Kuṛux *ḍebbā*.

§12. Sporadically in Indo-Aryan there has appeared designation of the right hand as "the eating hand". For Nepali Turner recorded *khāne hāt* (verb *khā-* from Sanskrit *khād, CDIAL* 3865), with no indication of what the difference of usage is from *dāine hāt,* which is the continuant of Sanskrit *dākṣiṇa-*.

Turner's *CDIAL* records in connection with the verbs *jam* "to eat" (5126, 5127), *jim, jēm* "to eat" (5267, 5268) the following items: Prakrit *jēmaṇaya-* "right hand" (Sheth's dictionary records it as a lexical item only), Old Gujarati *jimaṇaüṁ* "to the right hand side", Gujarati *jamṇɔ hāth* "right hand" (the usual Gujarati term). I have been unable to find anything of this sort recorded for Hindi (the verb seems to mean especially "to eat a feast"). However, the Betul dialect of Gondi (Trench 1921: 65, in a text) has *jeono kai* "right hand". This must be derived from Hindi *jẽwnā, jewnā* "to eat" (representatives of the verb *jēm*); this dialect of Gondi is otherwise known to have borrowed from the local Hindi dialect (Emeneau 1980: 216, reprinted from *International Journal of Dravidian Linguistics* 3.110 [1974]), and its term for "right hand" is evidence that the local Hindi uses "eating hand" for "right hand".

Oriya in its ordinary colloquial uses *ḍāhāṇa* (from Sanskrit *dākṣiṇa-*, with initial retroflex probably from *ḍebri* "left hand"; see §11). In less standard colloquial it has *khāibā hāta* "the eating hand" (cf. Nepali *khāne hāt*).[13] The Desia dialect spoken in the mountainous tribal area has *uja,* which is to be compared with Marathi *ujvā*, Halbi *uja*.

One would expect to find "the eating hand" more widely spread in Indo-Aryan colloquials. Our dictionaries seem not to have recorded it (at least I cannot find it); the *Linguistic Survey of India* unfortunately did not include "right hand" and "left hand" in its required collection of vocabulary items; chance speakers of the languages do not easily yield such terms as we are interested in.

[*Pat.* (1973: 25, 113) records a relevant form in 'Lamani-Banjara', which is the speech of 'a caste of carriers, traders, and cattle herders more or less nomadic' (J.H. Hutton, *Caste in India* [Cambridge: University Press, 1946], p. 243), said in *Pat.*, p. 4, to be concentrated in 'central India, [especially] in Maharashtra, Mysore, and Andhra Pradesh', but by Hutton, p. 19, to be found in 'western India', 'Rajputana', and 'central India' and 'the Deccan'. The material in *Pat.* was collected from a speaker in Pune (Poona), and the

word for 'hand' is of Marathi type. 'Right hand' is recorded as jəmNo hat, i.e. in standardized transcription, jamṇo hāt; though hāt is Marathi (rather than Gujarati), jamṇo is completely equivalent to the Gujarati form.]

§13. Having set forth as much relevant material as is available, an attempt should be made at historical statement.

In the large area where the right hand is "the eating hand", i.e. the whole Indian subcontinent, some items show clearly that a linguistic manifestation of this culture trait may appear spontaneously. This is certainly true of the unique Tamil "food hand". No historical connection can be imagined for the designation of the left hand as "the excrement hand" in Tamil and Tulu in the far south, and in Santali and Mundari of the North Munda subgroup in the neighbourhood of the Ganges valley. In Indo-Aryan India, if the right hand is "the eating hand" in Gujarati, a local Hindi dialect of the Vindhya area, Nepali, and substandard Oriya, with in fact no other occurrences in Indo-Aryan, these must be considered independent occurrences; we cannot be sure, however, that there are no other occurrences which would fill the geographical gaps in this distribution and necessitate some other interpretation.

§14. On the other hand, the great concentration of occurrences of "the eating hand" in both Dravidian and Munda languages in the great tribal area of eastern Madhya Pradesh, Orissa, and northern and northeastern Andhra Pradesh, to be called for short "Central India", presents a typical linguistic area configuration. The Dravidian Parji language has two terms for "right hand", one related to the terms of South Dravidian and Old Telugu, the other "the eating hand". Similarly, in the outlying North Munda languages, Santali and Mundari, two terms are found, one related to the general Austroasiatic terms of Southeast Asia, the other "the eating hand". It is to be concluded then that "the eating hand" is an innovation in this Central Indian area, in both Dravidian and Munda.

It is a matter of extreme regret that our data for some Indo-Aryan dialects of the area, such as local Hindi and Marathi, do not yet include the relevant terms. Our information on Halbi and on Desia, the local Oriya dialect of the area, is that "the eating hand" does not occur; however, substandard Oriya, outside the area but contiguous with it, has the term. We may then add substandard Oriya to the Central Indian area as regards this trait. It is possible too that Telugu, contiguous with the area and penetrating it (for many centuries) by expansion into the fertile valleys, is to be added to the area, when we consider the origin of the modern Telugu *kuḍi cēyi* as "the eating hand". This would give us a pre-modern date, since (as is set forth in §6) *kuḍi cēyi* had completely displaced the old term, related to the South Dravidian forms, by the fifteenth century, its first appearance having been in the thirteenth century.

§15. We have discovered, by analysis of the Central Indian Dravidian terms, that no reconstruction of an ancestral form for "the eating hand" is

possible. Some of the languages use a verbal adjective belonging to the non-past (present-future, habitual, or the like) paradigm—but these forms vary from language to language. Several languages, including Kuṛux-Malto which are northern outliers of the area, use *tina,* which is the verbal adjective in Kolami alone. It could conceivably have been a verbal adjective in an earlier period in all the languages in which *tina* is found in the designation of "the eating hand"; this has so far not been suggested (e.g. by Subrahmanyam 1971), and the evidence that I have adduced is very slight for such a far-reaching hypothesis. Apart from these languages which have *tina,* it appears that each language has formed its own term independently, and some of them in the same paradigmatic way (Gadba *tiyan,* Kui *tini*). Three of the languages have a different, but equivalent, verb (**uṇ-*); one of them uses the present verbal adjective (Kolami *unna*). To sum up, it is almost as if the languages had calques of one another—and this probably is the Munda situation as well. Dare we suggest that Telugu, the prestigious Dravidian language in the area, having innovated in the thirteenth to fifteenth centuries by denominating "the eating hand" *kuḍi,* and still using the related verb *kuḍucu* down to the fourteenth to fifteenth centuries, during these centuries provided the model for the calquing process in some at least of the tribal languages? Not all of them need to have made the change at the same period; Parji still has both old and new terms, and so have Santali and Mundari. But once some of the languages had adopted the innovation, it could have spread through the area from these new centers.

This is perhaps an overbold hypothesis in the present stage of our knowledge of the relations of earlier Telugu to the tribal languages.[14] However, if no such hypothesis is advanced, we are left in a state of ignorance which does nothing to explain why the languages of the area in question share an innovation in culturally based semantics, whether they are Dravidian or Munda or (considering substandard Oriya) Indo-Aryan. That linguistic manifestation of a cultural trait should appear spontaneously in so many diverse languages over such a wide area, without there having been a common innovation (however historically defined), seems unacceptable.

§16. Since we hold that a linguistic areal feature of this type spread because of extensive bilingualism in the speech communities involved, we should look at the situation in this area. Little is known in detail about the bilingualism or multilingualism of the area. In the grammar of Koṇekor Gadaba it is said that its speakers are bilingual in Telugu, and "occasionally they come into contact with the Gutob Gadabas also", which may mean that either they or the Munda-speaking Gutob Gadabas are bilingual in the others' language (unless they use Telugu in this situation). Zide (1969: 424-425) writes: "most of the speakers of Munda are bilingual or multilingual. . . . No studies of multilingual contexts and language use have been made." He lists a number of pairs of languages. The only pairs relevant to our inquiry are Gta?-Kuwi and Gta?-Remo (Boṇḍa); see §10 for the Munda data and §8 for

Kuwi. It is obvious that the bilingual condition for spread of a linguistic feature is indeed present in the area.

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NOTES

1. In the preparation of this paper I have been indebted for much information and discussion to Professor Bh. Krishnamurti (Konḍa, and especially the philological data on Telugu in §§4 and 6), and Professor Norman H. Zide (the Munda languages). Through these,

others also kindly supplied me with material: Sri B. Ramakrishna Reddy (from his field-notes on Manḍa, Indi, and Kuwi), and Professor Khageshwar Mahapatra (Oriya). I am also indebted to Professor George L. Hart III and Mrs. Kausalya Hart for information and discussion on Tamil, and to Professor Peri Bhaskara Rao for his kindness in sending me his book on Koṇekor Gadaba. Otherwise the material comes from the etymological dictionaries, and their sources are not in general indicated in this paper.

2. These ways are: (1) use of the hands alone, the food having been prepared in semi-liquid messes and/or in less than bite-size fragments; (2) use of the hands aided by a knife to cut fragments off large pieces of food; (3) use of a knife and a fork with which the food, of solid or semi-solid consistency, is inserted in the mouth; (4) use of two sticks (chop-sticks) held in one hand, the food having been prepared in less than bite-size consistency; (5) use of a cup or cup-like container, or of a spoon from which to drink when the staple food is liquid or semi-liquid.

3. Several tales in the Arabian Nights hinge on this matter, a man who has thus lost his right hand trying to avoid eating with others (or even letting them know of his loss). Burton's commentary (1885: vol. 1, p. 264, n. 3) goes so far as to say: "hence, probably, one never sees a left-handed man throughout the Moslem east" (reference in Penzer 1924-28: vol. 8, p. 302); there may well be feedback of this kind—compulsion against left-handedness because of the strictly observed cultural factor.

4. Cf. Penzer 1924-28: vol. 8, p. 302.

5. Any connection with other groups of etyma showing **iṭay*, **iṭam* (e.g. *DED* 368/*DEDR* 434, *DED* 379/*DEDR* 446, *DED* 380/*DEDR* 448), suggesting a basic meaning "distant, separate", seems highly speculative.

6. This Gondi form is so listed in *DEDS* 381; *DEDR* 449 wrongly lists it as borrowed from Indo-Aryan.

7. It is now possible to compare also the phonology in *DEDR* 447: Tamil *iṭai* "to grow weary (as with long waiting)", Telugu *ḍayyu* "to be tired, weakened", Kuwi (Israel) *ḍāh-* "to become weak or thin".

8. The dialect which I have heard cannot at present be accurately specified, but the speaker said that use of the literary terms (those in §4) was felt to be "bookish".

9. Perhaps in some social milieu in which the staple diet was liquid, semi-liquid, drinkable, "to drink (liquid food)" became generally "to ingest (food)". Gruel-like dietary staples are well-known throughout India. This explanation must be invoked for the shifts and confusion (from a non-Indian point of view) that are evident in several of the verbs whose meanings are given as "to eat" and "to drink" in Dravidian and in Indo-Aryan. An examination of the Dravidian situation was undertaken by L. V. Ramaswami Aiyar in his (1936) paper on "eating" and "drinking"; the last word however has not been said, since material is now at hand, through hardly complete, for over a dozen more languages than were available to him.

10. Another survival is *kuḍiti* "a drink for cattle".

11. It is not known how to class *tina ki* of Naiki of Chanda, since the recorded material on this language is meagre.

12. I quote Munda material from Pinnow's 1959 work, and from Zide's information. P.=Pinnow.

13. It also has for the left hand "the wiping hand", which is communicated to me as *chɔ̃ciba hatɔ*, i.e. *chãcibā hāta*; the nearest item that I can discover in *CDIAL* is (5620) *chā̃cibā* "to scrape off, chip, peel". This item is unique in my collectanea.

14. It is hoped that we are to have a searching study of this topic from an Indian scholar in the near future.

CHAPTER XXI

PROTO-DRAVIDIAN *c- AND ITS DEVELOPMENTS*

PROTO-DRAVIDIAN initial **c-* is defined phonetically as a palatal affricate[tš], by comparative examination of the phonetics of its continuants in the various languages. It is more complex than the other plosives in the initial subsystem of plosives, and is unstable and subject to simplification. This results in some languages in loss of the stop component, resulting in a sibilant, which is preferably the universally most favoured [s] but in some Tamil dialec ts[š]. In some Central Dravidian languages and dialects there is progressive development from *s-* to *h-* to zero. Simplification of **c-* sporadically results (1) in complete loss, or (2) in loss of the fricative component, which results in either *t-* or, less frequently, *k-*. Numerous etymological groups are examined in detail, resulting in some instances in new reconstruction.

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**JAOS*, 108. 239-68 (1988).

Appendix I: *c- in Tulu

Appendix II: *c- in Gondi

Appendix III: Sporadic replacement of *t- by *c-

References

1. Statements of the reconstruction of the Proto-Dravidian (PDr.) phonological system contain a unit symbolized as *c, which is usually referred to as a palatal. Certain as it is that such a contrasting unit (phoneme) is necessary, there is much that is problematical about it. There has been considerable writing on the matter, but some problems still remain unsolved, or are even in a sense still untouched.[1]

This paper investigates two of the larger problems: (A) the phonetic nature of *c, especially in initial position in the word, i.e. *c-, and its widespread development to a sibilant; (B) the sporadic development of *c- to zero, *t-*, or *k-* in some groups of etyma, with an attempt to understand the rationale of these developments (dealt with especially in §§8 and 17). It is thought that a firm solution of the phonetic problem will ease the problem, untouched in this paper, of the phonetic nature and the developments of *c in intervocalic position, i.e. *-c-; the much easier problems of *-cc- and *-ñc- are touched on in this paper in passing.

Certain of the historical problems connected with Dravidian palatals are not discussed in this investigation, since they have already been solved or, on the other hand, are not ripe for solution. In the former class is the palatalization to *c-* of initial *k- in Tamil-Malayalam and Telugu; Burrow's classical treatment (1943, pp. 122-32) gives a final solution, and the matter in any case arises in this paper in only a few instances.

To the latter class—problems not yet completely solved—belongs that concerned with the incidence of the vowels *ă and *ĕ following the initial palatals *c-, *ñ-, and *y-. Considerable interchange of these vowels is observed after these three palatals. That following *ñ- and *y- has been treated at some length by Burrow (1945), and that following *y- by Meenakshisundaran (1968). The interchange after *c- has been mentioned by these and other scholars (e.g., Krishnamurti 1961, p. 89, §1.212; p. 100, §1.240; Zvelebil 1970, p. 45, §§1.11.2.1 and 2; p. 61, §1.14.2.1; Subrahmanyam 1983, p. 388), but there is as yet no full treatment of the matter. In this paper nothing more is attempted than recording of the alternation in those instances where it appears.

Likewise, the alternation of initial voiceless and voiced plosives in some etymological groups is recorded without remark. The relevant material shows examples of *c-* and *j-*, *t-* and *d-*, *k-* and *g-*. Such alternations are so far accounted for only in part.

A. THE PHONETIC NATURE OF *c-

2. In the reconstruction of PDr. it is usual (e.g., in Subrahmanyam 1983) to posit a set of six 'stops' or 'plosives', their places of articulation running from the back to the front of the mouth: *k c ṭ t̲ t p*.[2] It will be recognized that this order is that of the Tamil alphabet and the exposition of the Tamil grammarians, who in this follow the Sanskrit grammarians in their order of the five vargas of stops (*t̲* being missing from Sanskrit).

In dealing with Dravidian, however, it is useful to enlarge on this list and present sets of phonetic correspondences for these six 'stops' or 'plosives' in their various occurrences, as in the following table.

	1	word-initial	k-	c-			t-	p-
inter-vocalic	2	single	-k-	-c-	-ṭ-	-t̲-	-t-	-p-
	3	identical cluster	-kk-	-cc-	-ṭṭ-	-t̲t̲-	-tt-	-pp-
	4	nasal+stop	-ṅk-	-ñc-	-ṇṭ-	-nt̲-	-nt-	-mp-

The dependence of this set of symbols on the Tamil writing system and its transcription is obvious. In Tamil, and in PDr., leaving aside *c* for the moment, lines 1 and 3 represent voiceless stops; it is usual to add 'fortis' to this definition and in line 3 to note 'length' as a characteristic feature. Line 4 has voiced stops following homorganic nasals. Line 2 has been the occasion of much discussion as to its history within the Tamil record (see a summary in Subrahmanyam 1983, pp. 279-83). It seems to be the consensus that in Tamil, again leaving aside *-c-* for the moment, lines 2 and 3 are differentiated in feature analysis by at least the oppositions lenis vs. fortis, and fricative (voiced retroflex flap for *-ṭ-*, alveolar trill for *-t̲-*) vs. stop. To these an opposition voiced vs. voiceless is often added, but 'voiced' can hardly be generalized in Tamil for all of line 2, since intervocalic *-k-* is pronounced as voiceless [x], and *-c-* is pronounced as a voiceless sibilant (see Firth's description quoted in §6.2). Going on to PDr., and considering that some of the members of line 2 are represented in many of the languages by voiced stops (*g, ḍ, d* [for *-t̲-*], *d*), it is difficult to arrive at a decision about the phonetics of line 2 in PDr.; this is not the problem of this paper.

The places of articulation of the items in the lines of the table are, from left to right: velar, palatal, retroflex, alveolar, dental, labial. Except for 'palatal', it is unnecessary to go into detail; the palatal position is discussed later (in §§3 and 6.12). It is useful to point out for later reference what is indicated in line 1: of the 'coronal' stops (*c ṭ t̲ t*),[3] the retroflex and the alveolar do not occur initial in a word in PDr. anymore than they do in Tamil-Malayalam, Kota, Toda, Koḍagu; when they occur in other languages, this results from metathesis, assimilation, borrowing, or the like.

3. Phonetic characterization of PDr. **c* should start from its occurrences in lines 3 (**-cc-*) and 4 (**-ñc-*), the least difficult to determine.

**-cc-* represents reconstruction for the following set of correspondences:[4]

South Dravidian: Ta. Ma. Koḍ. Ka. Tu. *-cc-*, Ko. *-c-* (in free variation with *-s-*), To. *-c-* (=[ts]);

Kol.-Ga. *-cc-*;

Central Dravidian: Pe. Manḍ. *-c-*, Kuwi *-cc-*, *-c-*, Go. usually *-s-*, but sometimes *-cc-* (conditions not yet determined), Kui *-s-*, Te. V̆]*-cc-*, V̄]*-c-* (pronounced [tʂ] before front vowels, [ts] before other vowels];

North Dravidian: Kur. *-cc-*/*-c-*, Malt. *-c-*, *-s-*, Br. *-s-*, *-sh-*; there is much uncertainty here, partly because conditions of occurrence have not yet been determined, and in the case of Brahui because there are so few etyma.

In this set of correspondences *cc* and *c*, except when it is indicated otherwise (i.e. in Toda and partly in Telugu), represent a palatal affricate. In some older accounts similarity to *ch* in English *church* is mentioned. Or, in accounts that are more specific (such as those of Firth for Tamil, Garman for Koḍagu, Gordon for Kuṛux, Mahapatra for Malto), the sound is described as a blade alveolar (or postalveolar) palatal affricate with sibilant (viz., [ʂ]) release; 'blade' is specified and justified, rather than 'tip', in several accounts.[5] Modern treatments of phonetics and phonology have insisted on the complexity of such affricates (e.g., labeling them 'marked' in contrast with stops, or [Chomsky-Halle 1968] insisting on a 'delayed release' as opposed to [-delayed release] for *t*, *k*, etc.), and have noted that in historical developments there is a tendency for simplification. It should be concluded, then, for this set of correspondences that the PDr. reconstruction should be an affricate with features 'fortis' and 'length' as mentioned above (§2); the variation in some languages between *cc* and *c* is usually a matter of conditioned variation in length. The appearance of a sibilant as either a variant (e.g., in Kota) or the only representative of the phoneme (e.g., in Kui) is due to simplification by loss of the initial stop element of the affricate. That the sibilant should be [s] rather than [ʂ] in most occurrences in this set, is a matter that requires discussion, which is undertaken in §8 in connection with the parallel development in initial position; it may be repeated here that Brahui has instances of both *s* and *sh*, no conditioning being yet discovered.

4. In line 4 **-ñc-* represents reconstruction, phonetically [ñj], for a set of correspondences in which almost all the languages have what is written *ñj* or *nj-*, i.e. with a voiced palatal affricate *j* preceded by either a palatal *ñ* phoneme or a palatal allophone of *n*. The writing in Tamil is *-ñc-*. So also in Malayalam, but in this language the combination frequently (but not always, Subrahmanyam 1983, pp. 309-12) assimilates to *ññ*; occasionally *ññ* is found also in Koḍagu, but here there is usually suspicion of Malayalam influence, as there is occasionally also in Tulu. Parji and Gadaba also often lose *j* in this combination. Kannaḍa under some conditions loses the nasal, only *j* remaining; similarly in Kota, while Toda has *z*́ (=[dz]) for **ñc*. No etyma

have yet been found in Brahui. There is here no uncertainty about *-ñc- (i.e. [ñj]) as the PDr. reconstruction. *-c- in this combination must be the voiced counterpart of the affricate in *-cc-.

5. *c- in initial position in the word (line 1) is less simple to deal with. The set of correspondences is given sketchily as follows; but in following paragraphs there is detailed discussion and more exact statement.

South Dravidian: Ta. Ma. Koḍ. *c-*, Ko. *c-* (in free variation with *s-*), Ka. *s-* usually, but also *c-* (with the fluctuation probably due to borrowing from Telugu or to dialectal variation), To. *t-* (§19); Tulu data are not usable, since, though the brahmin dialects have *s-* for **c-*, in all other dialects **c-* and **t-* coalesce and then show very diverse developments (*t-*, *c-*, *s-*, *h-*, *ϕ*)—our sources in general give a selection of forms without any dialect attributions (see Appendix I).

Kol. Nk.(Ch.) Ga. *s-*, Pa. *c-*; the Kinwaṭ dialect of Kol. has *c-* (Emeneau 1955, p. 131, §9.10).

Central Dravidian: Te. *c-* (i.e., [t$\breve{s}$] before front vowels, [ts] before other vowels), Konḍa Kui *s-*, Kuwi *h-* (but sporadically *s-*), Pe. Manḍ. *h-* (but Pe. has *s-* in some song-words [§6.13]), Go. *s-* (NW dialects), *h-* (SE dialects), zero (Hill Maṛia and Koya dialects).[6]

North Dravidian: Kur. Malt. Br. *c-*.

6.1. For Koḍ. Kur. Malt. the phonetic descriptions (identical with those reported in §3 for **-cc-*) leave no doubt that they have affricates of the type seen for **-cc-*. For Kannaḍa, Sreekantaiya (1954) described *c-* as 'blade-alveolar affricate'. In Malayalam, Parji, Brahui *c-* is 'affricate', with little further specification.

6.2. The writing of *c-* for Tamil is neither enlightening nor exact for its phonetic value at present or in the past; considerable examination is necessary.

Firth (1934, p. xi), in a phonetic treatment of what was apparently a highly formal or reading style, described the pronunciation of initial and intervocalic *c* as follows: "An s-sound with a bit of $\breve{s}$ in it. It is neither the high frequency hissing s of *sea* nor the low frequency $\breve{s}$ of *shore*, but a medium frequency s with a little $\breve{s}$ in it, produced with the blade of the tongue behind the teeth ridge without any lip rounding . . . It is more s-like in initial positions when followed by open or back vowels (a, o, u) than in intervocalic position, when ... it has a lax articulation."[7]

L.V. Ramaswami Aiyar, in his very detailed study of the problem (1933), after close description of the phonetics of Tamil, concluded (p. 146) that *c*, as pronounced in e.g., *-cc-*, "is composed of the front plosive [c] and *ś*. The point of articulation is the same for both . . . " He noted (p. 147) "the uniform occurrence of *c-* [i.e. the palatal affricate] in initial positions in the dialects of Jaffna and Tinnevelli . . . " He says of initial *c-* (p. 143): "The value of *ś* is general for this Tamil initial fricative, whether followed by a front vowel or a dorsal vowel. In the colloquial of certain districts and certain communities, however, this fricative becomes a dental *s*, when it is immediately

followed by a dorsal vowel [i.e. u, o, a]. It may be noted that in these colloquials the dental *s-* is almost never heard when followed immediately by the front vowel *-i* or *-e*."

6.3. It is evident that closer examination of the dialectal phenomena is necessary. This is possible by use of Zvelebil's findings published in the later 50s and early 60s. It must be prefaced that, though the major dialect areas of Tamil have been identified with respect to their centres (cities or the like—e.g., on the map showing some dialect centres in Zvelebil 1959, p. 281), we still have no maps with identification, proximate or exact, of boundaries. Moreover, difficulty in exact statement of the characteristics of the dialects follows from the pervasive influences of the literary language (archaic) and of a standard colloquial, however ill-defined that still is. Dialect mixture is general in Zvelebil's material, especially since most of his informants, though hailing from specified dialect areas, were persons of education, and his material shows mixed characteristics, which might (or might not) have been avoided if more of his data had been derived from 'peasant' or true dialect-speaking types. With this much introduction, Zvelebil's data on *c-* may be evaluated.

The dialect areas recognized, with their main centres, are (Zvelebil 1964, p. 239): northern (Madras City, Velur), eastern (Kaveri delta, Tiruchirappalli, Tanjore), western (Salem, Erode, Coimbatore, Dindigul), southern (Madurai, Tirunelveli [= Tinnevelli], Ramnad, Tuticorin), Ceylon/Sri Lanka (Jaffna, Trincomalee, etc.). The pronunciation of *c-* in the northern dialect area is (ibid., p. 242): "a sibilant [s] rather than an affricate . . . especially initially." The western dialect area is characterized (ibid., p. 244) as having "an important isogloss which separates [it] from all other continental dialects, [viz., the] pronunciation of /c/ as affricate stop"—not exactly an isogloss, as examination of the southern dialects shows. The Sri Lanka dialects also (ibid., p. 252) in general have the 'affricate plosive' for *c-*. In the southern dialect area, Madurai (Zvelebil 1960, p. 427) has 'alveopalatal or palatal affricated stop' initially, with *š* and *s* occurring also in free variation with *č*; Ramnad (Zvelebil 1963, p. 666): "/č/ in initial position is most often realized as [č] and [š], though [č] is more frequent"; Tuticorin (ibid., p. 657): there is free variation, but there is a "slight preference" for [č];[8] as was quoted above (§6.2), L.V. Ramaswami Aiyar says that in the Tinnevelli dialect there is "uniform occurrence" of the palatal affricate initially. By elimination, the pronunciation of initial *c-* as [š] must be general in the eastern dialect area. It is this pronunciation that, like so many other features of this dialect area, is basic in the modern standard colloquial, however defined, as well as in the usual pronunciation of the literary standard (Zvelebil 1964, pp. 248-50).

It should be noted here that the western dialect area and the southern dialect area are contiguous geographically, the former being to the NW of the latter, and the two together forming the southwestern and southern part of the continental Tamil area. Directly east of the Ramnad-Tuticorin-

Tinnevelli southeastern section of the subcontinent is the Tamil-speaking section of Sri Lanka. These three contiguous or nearly contiguous dialect areas have for *c-* the palatal affricate initial, either uniformly (western and Sri Lanka dialects), or most frequently or preferentially. In the latter case we must suppose that there is much dialect mixture, deriving from the eastern dialect area (which is to the NE of the southern area) or from the standard colloquial or the literary language. The unity of the three areas which have the palatal affricate initial is clear, descriptively and presumably historically as well.

6.4. L.V. Ramaswami Aiyar also addressed the evidence of the Tamil grammarians, which is presented as follows. The oldest description of Tamil phonetics, in the Tolkāppiyam grammar, the phonology section Eṟuttatikāram, in a series of sūtras giving the 'organs of articulation' of the stop and nasal consonants has (Subrahmanya Sastri 1930, p. 13, sūtra 90; his translation apparently follows the commentary Nannūl): "c and ñ are produced by the contact of the middle of the tongue with the middle of the hard palate." This is entirely parallel with sūtra 89 in which the velars "are produced by the contact of the root of the tongue with the root of the hard palate," and treats *c* as if it were entirely parallel with *k,* ignoring any difference (if there were any) in the type of release.[9] That is, it is impossible from this description to know whether *c* is a palatal stop or a palatal affricate. Since all other Tamil evidence (e.g., that of the dialects) looks to an affricate alternating with the fricative element of the affricate, a palatal stop (without fricative release) seems very improbable, and Ramaswami Aiyar (1933, p. 147) says *tout court*: "the traditional view of Tamil grammarians that [the Tamil symbol for *c*] stands for *c* [*cš̌*] and not for *ś-*."

It should be added to Ramaswami Aiyar's treatment that, according to Zvelebil (1960, p. 427, n. 24), in 'theory', presumably that of the old grammarians, *c* "should always be pronounced [č] even in initial position. Tamil pandits maintain that this is the only "correct" pronunciation."

Ramaswami Aiyar concludes his treatment by saying, or seeming to say (1933, pp. 146-47) that the initial sibilant of Tamil was the result of loss of the stop element of the affricate, that it was originally palatal as was the affricate, that the dental sibilant before non-front vowels is secondary to the palatal sibilant, and that the initial palatal sibilant found before all vowels in 'standard' Tamil is the result of 'generalization' of one allophone before all vowels.

6.5. Irula, whether it is to be classed as a separate language or as merely a dialect of Tamil that split off very early, is very close to Tamil and provides useful evidence on this point (which I owe to Professor Zvelebil's kindness). About 85 per cent of the pertinent etyma have for **c-* the palatal affricate [tš̌]. The remaining items have a sibilant (*s-* or *ʂ-*): all of these are judged (by Zvelebil) to be loanwords, of either Dravidian or Indo-Aryan origin, introduced by Tamil immigrants into the Nilgiris.

6.6. This examination of the various types of Tamil evidence, including that from Irula, leads to a historical statement for Tamil, in which the more complex phonetic entity, i.e., the palatal affricate, is the more original continuant, and a sibilant, produced by loss of the stop feature, is historically secondary, i.e. *č*>*š* or *s* (cf. a similar statement for **-cc-* in §3).

On enlarging the enquiry to South Dravidian as a whole, we find that Malayalam and Koḍagu have the palatal affricate for **c-*.

Malayalam is hardly to be treated historically in this matter as a language separate from Tamil. Taken in conjunction with the attestation of the palatal affricate in the Tamil dialects of the area contiguous with Malayalam, viz., the western and southern dialect areas of mainland Tamil and the Tamil dialects spoken in Sri Lanka, we may conclude that the whole Tamil-Malayalam area originally had the palatal affricate. It is found also in Koḍagu, which also is contiguous with Malayalam and which, prior to modern times, was the language of an area culturally closely related to the Malabar area.

In the remaining dialect areas of Tamil and in 'standard colloquial' Tamil, then, the affricate lost the stop feature and instead of it there appears a sibilant. There is still uncertainty whether we should accept Ramaswami Aiyar's historical reconstruction as outlined at the end of §6.4, or should take the palatal sibilant before all vowels, as found in some dialects and in the 'standard colloquial', as the primary resultant and the dental sibilant before non-front vowels as a secondary change from the palatal sibilant. *Prima facie*, the latter development seems simpler, but there is no certainty so far. (For a more general discussion of the problem of the two sibilants, see §8). It might be noted that the dental sibilant of the northern dialect area of Tamil might possibly be the result of diffusion from the Telugu or the Kannaḍa spoken by many inhabitants of this very multilingual area; lack of detailed information makes this a mere suggestion.

6.7. It is said of Kannaḍa (Zvelebil 1970, p. 108, §1.25.1.64) that *s-* occurs in 'upper-class speech' and *c-* in the speech of 'low' communities. So far there seems to have been no mapping of this difference. It is possible to find by casual inspection of published dialect material that the Kumta dialect (west coast) has the palatal affricate (as described in Upadhyaya 1976); it is probable that the free variation between the affricate *c-* and the sibilant *s-*, as described for Halakki Kannaḍa (Acharya 1967) is to be referred to the same dialect.

6.8. The evidence of Tamil-Malayalam-Koḍagu (including also Irula) looks to the palatal affricate as the phonetic reconstruction of **c-* for this major area of South Dravidian. To this may be added the evidence from the 'low' communities of Kannaḍa, to allow the same reconstruction for South Dravidian in general. The developments in the two Nilgiri languages, Kota (**c->c/s* in free variation) and Toda (*c->*t-*; see §19), are as much secondary historically as is the Tamil loss of the stop feature in some dialects. The Tulu evidence is unusable in this matter; see §5 and Appendix I.

6.9. In the Kol.-Ga. subgroup, Parji has the palatal affricate *c*-, as has one dialect of Kolami (Kinwaṭ),[10] while the others have *s*-. With *c*- occurring in the two branches of this subgroup, the palatal affricate should be the reconstruction for the subgroup.

6.10. Of the Central Dravidian languages, Telugu has in the sub-standard dialects postdental *s*-, which also is discussed in §6.13 in connection with the phenomena of the other Central Dravidian languages. Standard upper-class Telugu[11] has what is conventionally transcribed as *c*-, which in pronunciation is [t$\overset{s}{s}$] before front vowels and [ts] before non-front vowels. It is presumed by competent Telugu specialists that the palatal affricate is historically original and that the non-palatal vowels conditioned the shift to the postdental affricate. This is stated, fairly explicitly, by Zvelebil (1970, p. 109, §1.25.1.10.1 and note 25). The conditioned occurrence of the two affricates has been examined, as an areal feature ('microarea'), by Sreekantaiya (1954), Emeneau (1956), Zvelebil (1970, p. 109, §1.25.1.10.2), etc. The languages included in the area are Telugu, southern Oriya dialects, northern Kannaḍa dialects, Marathi and Konkani, plus probably some tribal languages (e.g., Gadaba of Salur [Bhaskara Rao 1980, pp. 2f.], but the items are borrowings from Telugu, and otherwise **c-*>*s-*). It should be noted that in Marathi and Kannaḍa, as in Telugu, the palatal affricate is historically primary and the postdental affricate secondary.

The remaining Central Dravidian languages show developments from **c-* which are presented in §6.13.

6.11. The three North Dravidian languages all have the palatal affricate. The very few exceptions with *s*- that are entered in the etymological dictionary (see *DEDR* indexes) are all doubtful. They are probably better treated as borrowings from Indo-Aryan (e.g., 2410 Br. *sālum* 'son-in-law, brother-in-law'; 2585 Br. *sil* 'skin, slough of snake, rind'; 2694 Malt. *surli* 'flute'), as expressives (e.g., 2712 Kur. *sur"pnā* 'to drink with a noisy sucking of the lips'), or as only tentatively or even wrongly placed (e.g., 916 Br. *sal-(ī)-* 'to stand' [see §14, fn. 16]; 2539 Kur. *simdhārnā* 'to become damp' [see §21]).

6.12. There is no difficulty, considering the occurrences of the palatal affricate in all the subgroups of the family, in reconstructing this pronunciation for PDr. **c-*. The more specific description will include 'blade-alveolar palatal' and will specify that the affricate has as release a sibilant of the *š*-type.

6.13. The Central Dravidian languages other than Telugu show in general secondary development of the palatal affricate to a sibilant, by loss of the stop feature, and in some of the languages development to *h*- and further to zero (ϕ) The problem arises as to whether there is only one historical line of development, several independent developments, or areal influence between languages; this cannot yet be solved, but some of the details are set out below.

Gondi shows the entire line of developments in its various dialects, viz., in the north and west *s*-, in the south and east *h*-, in several of the farthest SE dialects (viz., Hill Maṛia and Koya) zero. However, it is now demons-

trated (in Appendix II) that the Adilabad-Yeotmal dialect has, alongside general occurrence of *s*-, a few items with the affricate *c*-, which are to be interpreted as showing the retention of the original affricate character of **c*-, through failure of the change to *s*- to spread through the whole lexicon. Gondi then joins Telugu (not too close a congener) in providing evidence for the original affricate pronunciation of **c*- in Central Dravidian.

The remaining Central Dravidian languages show one or another of the resultants of **c*- that are seen in the Gondi dialects, viz., *s*- and *h*-. *s*- is found in Konḍa (the nearest relative of Gondi), and in Kui except for the Kuṭṭia dialect (which shows the resultant *h*- seen in the contiguous Kuwi); it is to be remembered that *s*- is the substandard Telugu resultant. *h*- is found in the Kuṭṭia dialect of Kui, contiguous with Kuwi, and in Kuwi; but Kuwi also has a few forms ('sporadic') with *s*- (Burrow-Bhattacharya 1963, p. 234 top), the change *s*->*h*- not having spread through the whole lexicon. *h*- is found in Pengo and the closely related Manḍa; that *h*- results from *s*- and is a recent change is clear for Pengo, since *s*- is preserved in some words in the language of songs (i.e. as an archaism; Burrow-Bhattacharya 1970, p. 11, §19).

This distribution shows that the progression from *c*- to *s*- to *h*- to zero has taken place at different periods in the different languages, and to some extent independently. Philological evidence as to the period of the Telugu differentiation into upper class *c*- ([ts], [tš]) and lower class *s*- is (apparently) lacking. However, influence on Telugu from the developments in the tribal languages is highly improbable. On the other hand, Kannaḍa upper class *s*-, Telugu lower class *s*-, general Gondi and Konḍa *s*-, Kuwi 'sporadic' *s*-, and Pengo archaic *s*- are in a larger sense geographically contiguous. An areal development or developments can be suspected, although it seems impossible to erect fruitful hypotheses (e.g., lower class Telugu influence on the tribal languages), without further data about history and even about the geographical distribution of dialectal differentiations in Kannaḍa and Telugu and about the contiguities of the tribal languages. Whether, e.g., the fairly recent Pengo development of *s*- to *h*- owes anything to influence from Gondi *h*-dialects seems to be a question impossible to answer with the inadequate mapping of the two languages that is now available. Kuwi's location with respect to Gondi *h*-dialects seems to be more distant than Pengo's, but the data on this matter are quite inadequate for any hypothesis. This whole problem must be left for further study.[12]

7. Up to this point, the examination has been of a neo-grammarian kind, in which 'regular' correspondences have been set up. Correspondences for **c*- in word-initial position and for **cc* and **ñc* in interior positions in the word have been compared in order to attain as great certainty as possible about the phonetics of the reconstruction (**c* in intervocalic position has been omitted from consideration, since there is much less certainty about the reconstruction of the phonetics). From here on, attention is concentrated on initial **c*-, since this shows more variation than **c* in the other positions

that are examined. Still within the neo-grammarian methodology, it is to be noticed that conditioned developments occur, e.g., in Telugu; that there are dialectal differences of development within some languages, e.g., Tamil and Gondi; and that the effects of borrowing between languages or dialects must be taken into account; e.g., in Toda the regular development of **c-* is *t-*, but many instances of *s-* are found in words borrowed from Tamil or from the Badaga dialect of Kannaḍa (sometimes other features of a word help to establish that there has been borrowing)—or in standard Kannaḍa, besides the regular *s-* development, there are instances of the affricate *c-* in borrowings from Telugu or (perhaps) from non-standard Kannaḍa dialects (see Burrow 1947, p. 145; but there is still some scholarly difference of opinion about the historical status of the alternatives *s-* and *c-* in Kannaḍa).

8. Before leaving this examination of **c-* and its phonetics and phonetic developments, we should examine the problem of the sibilant that results from the simplification of the palatal affricate by loss of the stop element. Simply put, we should expect the sibilant to be palatal, but except in Tamil we find only *s* in the records, viz., in SDr. Kota and Kannaḍa; in Kol.-Ga. minus Parji; in CDr. sub-standard Telugu, Konḍa, Kui, the NW Gondi dialects, and some Kuwi and archaic Pengo examples; also in some dialects of Tulu, although Tulu in general must be ignored (see Appendix I). The historical solution for Tamil has been discussed in §6.6; there is still uncertainty, but it is almost certain that the palatal sibilant is more original than *s*.

Otherwise, the problem is to explain the development to a dental sibilant rather than to a palatal sibilant. Modern treatments of sibilants in general are rare and on the whole not too relevant for our problem.[13] The most pertinent is that by Nartey (1979), in which phonemic universals are sought as concerns fricatives, including sibilants, and stops. The data base is drawn from 317 languages. Some of the 'universal' statements based on these data and relevant to our problem are as follows:

> Statement 2 (p. 4): "If a language has only one primary fricative, its primary allophone is most likely to be /s/." Statement 3 and the following discussion (pp. 4ff.) find that the palatal sibilant tends to be found as the third 'most likely' fricative (the second being /f/).
>
> We are informed (p. 6) that in an acoustic test of fricatives *s* topped the list in relative intensity, being superior to *š*; relative intensity, being related to 'perceptual salience', would seem to be a desirable attribute. Furthermore, "the tip of the tongue (used in the production of [s]) is the most mobile organ of articulation." To sum up, "/s/ proves to be the most 'efficient' fricative by combining articulatory ease, perceptual salience and acoustic superiority."
>
> On p. 36, in comparing fricatives/stops/nasals, it is found that *s*/*t*/*n* are favoured in their incidence of occurrence because "the sounds

> in question are all made with the most mobile organ of articulation—the tip of the tongue—at the acoustically most superior place—the alveo/dental region."

This result, 'universal' tendencies based on statistical analysis of a large corpus of data, may be transferred to the sphere of historical statement. When the palatal affricate simplifies by loss of the stop element, the resulting sibilant, if it is the only sibilant in the phonemic system, is 'more likely' to be *s* rather than *š*. The latter cannot be ruled out completely, but is second in probability to *s*. This indeed is what we find in the data in our problem. The languages which show sibilant development from **c*-[tš] fall into two groups, on the one hand Tamil, on the other two other SDr. languages, the Kol.-Ga. subgroup minus Parji, and the CDr. languages (minus upper class Telugu). Historically, the evidence shows that the Tamil development is quite independent of that seen in CDr. In Tamil alone the sibilant is (probably) *š*. In CDr., whether we are dealing with one or more independent developments, the result is the 'more likely' one, viz., *s*. It is to be hoped that the general methodology from which this answer to our problem follows, has sufficient validity to make the answer one of certain and lasting value.

B. SPORADIC DEVELOPMENT OF **c-* TO ZERO, *t-*, OR *k-*

9. The discussion so far has started from a set of correspondences, regular in a neo-grammarian sense, based on a very large body of etymologies (about 500). A few examples may be given in which no exceptions are found to the statement of correspondences. Examples of Toda *t-* <**c-* have not been included; the topic is better treated in § 19 in connection with 'sporadic' instances of *t-* in other languages. Tulu etyma are not given, since we do not yet have a completely certain solution to the various dialect developments (*t-*, *c-*, *s-*, *h-*, zero, for both **c-* and **t-*; see Appendix I). Nor is it possible always to give etyma from the NDr. languages; in Brahui the material of Dravidian origin is particularly meager.

2300 Ta. *cāṭ-*, *cāṭṭ-*, *caṭai-* 'to beat, hammer, etc.', Ka. *jaḍi* id., Te. *saḍincu*, *jaḍiyu* id., Pa. *caḍ-p-* id., Kui *jaṛsa* 'a whip', Malt. *jáṛ-* 'to beat down as fruits, shake down'.

2377 Te. *celagu*, *celavu*, *selāgu*, *selayu* 'to cut', *sela* 'hole', Kur. *calx-* 'to open, uncover', Malt. *calg-* 'to split or break open', Br. *cal-*, *calēng-* 'to become cracked, split'; (also Tu. *selè* 'chink, crack, flaw as in a stone').

2384 Ta. *call-* 'to sprinkle water', Koḍ. *cell-* 'to throw away (liquid), scatter (grain)', Ka. *callu*, *cel*, *cellu*, *celaṅku* 'to scatter, pour out, shed, spill', Te. *callu*, *jallu* 'to sprinkle, scatter, sow', *jallu* 'rain, a shower', Nk. *sall-* 'to sprinkle', Pa. *cal-* '(rain) showers', Ga. *jall-* 'to sow seed, scatter', Go. (S.) *jal-* 'to strain water from boiled rice', (Koya Su.) *all-* 'to sprinkle (water)', Kuwi *jal-* 'to throw out liquids'.

2440 Ta. *cāṭṭam* 'jumping', Ma. *cāṭu-* 'to leap', Kur. *cāṭax-* 'to stride, stride across, jump over', Malt. *cág̣ṭ-* 'to jump over'.

2524 Ta. *citar* 'raindrop', Ma. *citar* 'a drop as of ghee', Go. (Mu.) *hidihk-*, (Ma.) *idk-* 'to sprinkle', (M.) *hidkā-* 'to spray', Malt. *cithge* 'to begin to rain drop by drop'.

2526 Ta. *citai-* 'to be injured, broken; to injure, destroy', *citak-* 'to strip off, erase', Ka. *cida/uku* 'to squeeze soaked pulse and remove the skin', *sindu*, *sendu* 'to rub out, destroy', Te. *cit/duku* 'to be crushed, broken; to break, burst', Koṇda *sidli-* 'to be crushed (as an overripe fruit)', Malt. *cithg̣e* 'to squeeze out the seed from a fruit'.

2601 Ta. *cī-* 'to scratch (as fowls), tear up earth (as pigs)', Ma. *cī-* 'to scratch', Ka. *cīr-*, *civar-*, *civur-*, *sivur̲-* 'to scratch with the nails of claws', Te. *cīru* 'to scratch', Kur. *cīr-* id., Malt. *circ-* 'to scratch (as a bird with talons)', *circo* 'spurs of a cock'.

2631 Koṇḍa *sīr-b-* 'to cry, weep', Pe. *hīr-b-* 'to call' (intensive base), Malt. *cirq-* 'to shout, make a noise'. Te. *cīr̲u*, *cīru* 'to call, cry, weep' may belong here (also Ka. *cīr̲(u)* 'to scream, cry out') rather than in the set with **k-* at 1590, which is found in all subgroups but Kol.-Ga. (so Krishnamurti suggests by letter; see also id. 1961, p. 358, no. 447).

2818 Ta. *cēval* 'male of birds and fowls', (Tinnevelli) *cāvalu* 'a cock', Ma. *cēval*, *cāval* 'cock, male of birds', Malt. *cawg̣e* 'cock-bird'.

2838 Ta. *coṭṭai* 'crookedness', Ka. *coṭṭa*, *coṭṭi*, *coṭṭu*, *soṭṭa*, *soṭṭu* id., Te. *coṭṭa*, *soṭṭa* 'crooked(ness), lame(ness)', Ga. (Oll.) *soṭaṭonḍ* (masc.). *soṭiṭe* (fem.- neut.) 'lame', Koṇḍa *soṭa* 'a deformed man', Pe. *coṭa* 'lame', Kuwi *soṭa* 'crippled man', Br. *cōṭ* 'crooked, zigzag, crooked in character'.

2843 Ma. *cotta* 'mud, mire', Kur. *cot°r* id.

2855 Ta. *col-* 'to say, speak, command', *col* 'word, command', Ma. *collu-* 'to say, order', *col* 'word, command', Ko. *col* 'command'. Koḍ. *collï* 'name' (a song word), Ka. *sol*, *sollu* 'to say', n. 'word', Pa. *cul-* 'to say', Kuwi *jōl-i-* 'to talk, speak'.

10. It has, however, long been realized and much discussed,especially by Burrow in his classical treatment in 1947, that there are many etymologies for which the 'regular' set of correspondences for initial **c-* does not hold, and in which the 'irregularities' cannot be explained as conditioned but are 'sporadic'. That is, the neo-grammarian methodology cannot be applied to these etymologies. The irregularities are of three kinds: (1) in a large group of etymologies SDr. and sometimes Telugu show loss of **c-* (see §§11-17); (2) in a somewhat smaller, but still large, group **c-* is replaced by *t-* in an unsystematic scattering of languages (§§18-23); (3) in a small group of etymologies **c-* is replaced by *k-* (§§24-29). There is some overlapping between these three groups, i.e. there are some etymologies which, beside **c-* with its various developments (sibilants, etc.), show *t-* and zero, some *k-* and *t-*, some *k-* and zero, and some *k-*, *t-*, and zero. Once this is recognized (as in fact it has not been completely so far), some of the etymological puzzles become

clearer. My earlier treatment (1961) of etymological groups in which NDr. had velar phonemes replacing the palatals of other languages attempted a neo-grammarian type of statement for part of the evidence. This has been criticized (especially by Pfeiffer 1972), since exceptions are found to the 'regular' statements which were attempted. It becomes clear, on examination of all the evidence now at hand, that the correspondences that I set up are as 'sporadic' as the instances of replacement of **c-* by *t-* or by zero.

11. (1) Burrow's 1947 paper, entitled "The loss of initial c/s in South Dravidian," can bear reexamination, since work on the Dravidian etymological dictionary has added more etymologies in which this loss is seen, as well as eliminating some of the paper's tentative groupings. The number of groupings that are now acceptable has grown from approximately 44 in that paper to approximately 70 in *DEDR*.

Burrow's 'South Dravidian' included Telugu, which is now subgrouped otherwise. But, as is concluded by Subrahmanyam (1983, p. 320), "the similarity between Telugu and South Dravidian in this respect [as in several others, e.g., the palatalization of **k-*, is] due to areal convergence. Telugu must have undergone this change due to the influence of the neighbouring southern languages." On the other hand, in this matter Tulu is one of the southern languages, as is seen in Subrahmanyam's treatment of this language (1968b, p. 48).

Burrow concluded (pp. 145ff.): "A survey of the material. . .discloses a complete absence of regularity of treatment. On the one hand *c-*/*s-* is preserved in some words in all the languages in question. At the other extreme there are words in which the initial consonant has been lost in all the Southern languages. In between these words we find a mass of words in which the initial has been lost in one or other of the South Dravidian languages while it is preserved in the rest. Further, double forms (Ta. *ippi*, *cippi*, Ka. *īr*, *sīr*, etc.) are to be found in each of the individual languages. Obviously it is not possible to reduce all these facts to any rigid rule. We can only establish that there is a tendency for this initial to be dropped; that this tendency is confined to the Southern Dravidian languages and is one of the features that distinguishes them from the Central and Northern groups; and that among the Southern Dravidian languages the tendency is strongest in Tamil, particularly in the classical dialect of that language."

12. 'Partial or incomplete sound-change' has in recent years been investigated in terms of a rule or rules starting in a small portion of the lexicon and thence spreading, or failing to spread, gradually over time to the remainder of the lexicon, in one or more of the languages of a family.[14] The loss of **c-* is to be viewed in this light. Statistical study of the material is in order, but what has been accomplished fails to yield any startling conclusions.

13. Loss of **c-* in all SDr. plus Telugu, and retention elsewhere, is in fact found in fewer groups of etyma than might be expected from the trend of the general statements. There are 13 such groups, in not all of which are all the

SDr. languages represented by items; these are *DEDR* 2341, 2391, 2410, 2485, 2552, 2559, 2598, 2617, 2674, 2776, 2798, 2826, 2857. Of these 8 had appeared in Burrow's paper; there are 5 new groups discovered since then (viz., 2341, 2391, 2410, 2552, 2798).

In 3 groups both **c-* and its loss (zero) are found in SDr. and Telugu, and **c-* is retained elsewhere. These were included in Burrow's paper. They are *DEDR* 2335+157, 2342+162+271, and 2698. In 2684+664 all SDr. has both **c-* and zero, but Telugu has only zero.

In about 28 groups one or more of the relevant languages has both **c-* and zero, while the remaining relevant languages have either **c-* or zero. The distribution is very random and sporadic, and the only general statement that can be made is that Tamil or Tamil plus Malayalam appears most frequently with both resultants. Even so, Tamil and Malayalam disagree in this in several items, Tamil having both resultants and Malayalam one or the other (e.g., 2498 and 2542 with Ma. *c-*, 2693 with Ma. zero). Examples of the unexpected and sporadic are: 2815 in which SDr. and Telugu have zero (e.g., Ta. *ēr* 'plough and team of oxen': Kol. (Kinwaṭ) *cēr* id.), but the Jaffna dialect of Tamil has *cēr*; 2334 **capp-*, **cav-*V- 'to chew, suck, etc.', in which all the languages of the family have **c-*, except Kota which has *cap-* 'to suck repeatedly' and *ayv-* (past *avc-*) 'to chew'. In 2703 **cula/ukk-* 'light, easy; contemptible', Te. has both *culuka* and *ulaka* id., *ulakana* 'lightness, easiness; slight, disregard' (the zero forms not in *DEDR*, but see Burrow 1947, p. 140).

The remaining groups (about 25) show sporadic losses or retentions of **c-*. In many of these, few of the languages are represented, but the reconstruction is certain. E.g., 2315 'squirrel' has loss of **c-* in SDr. (Ta. Ma. Ko. To. Koḍ. Ka.) and retention in Tu., one dialect of Ka., and the Nilgiri tribal languages ĀlKu. (*caṇṇe*) and Irula (*caṇṇe.*; *c* = ç; courtesy of Professor Zvelebil); 2429 **cakk-* 'hunger' has **c-* in Nk.(Ch.) Pa. Pe. Manḍ. Kui Kuwi, and Telugu alone has zero; 2565 **cil-* '(hair) stands on end, etc.' has **c-* in Kui and zero in Ta.; 2585 **ciḷ-* 'to flay, pluck' has **c-* in Ma. Tu. Pa. Kui, and Tamil alone has zero; 2667 **cut(t)-*'to wash' has **c-* in Kol. Nk. (Ch.) Go., and Telugu alone has zero; 2878 **cōpp-*, **cōv-* 'to drive away' has **c-* in Ka. Te., and Tamil alone has zero. In 2362 Pa. Ga. have **c-*, Ko. zero; 2374 Go. **c-*, Ta. zero; 2644 Kur. Malt. **c-*, Ka. **c-* and zero; 2693 Pa. **c-*, Ta. **c-* and zero, Ma. zero.

14. Since there has been so much insistence on the occurrence of zero from **c-* only in SDr. and Telugu (cf. Burrow's statement quoted above),[15] it must be noted that there is one tempting instance of such loss in Kolami and Gondi as well as in SDr.: 2610 Ta. *ical*, *iccu* 'a whistle', Te. *īla* id., Kol. *i·sa poḍ-* 'to whistle', Go. (Tr., i.e. a northern dialect) *īsrī* 'a whistle': Go. (W. Ph., which are northern) *sīsarī*, (ASu.) *sisrī*, Konḍa *sīsuṛi*, Pe. *sisiri*, Kui *sisoṛi*, Kuwi (Israel) *cīcoṛi*, (F.) *sīsori* (*r* = *ṛ*) id.; Tulu *isu̯lu̯* id. is recorded, but this is not quite certain for **c-* or zero without indication of the dialect in which it occurs, although it may well be a brahmin or Baṇṭ form, in which case it is

evidence for zero. That there is some 'expressive' interference with regularity of development is clear in (at least) Kuwi, where **c-* is expected to yield *h-* rather than *s-* or *c-*. On the other hand, if initial **c-* is required for expressivity in this group, loss of **c-* would seem to be 'regular' rather than 'expressive'; consequently, the Kolami and Gondi forms without **c-* seem to be on all fours with SDr. plus Telugu loss of **c-*.

Though without express knowledge of this instance just quoted from 2610, Pfeiffer (1972, p. 32, no. 154) has argued for uniting Kur. *īmā*, Malt. *īme* 'white ant' (*DEDR* 541) with the words for '(black) ant' in *DEDR* 2623: Te. *cīma* (Kol. *si·ma*, Konḍa *sīma*, Kuwi *sīma*, [P.] *hīma*, are probably nearly all borrowed from Telugu in spite of the one dialectal Kuwi form with 'regular' *h-*). He argued thus in spite of the semantic difference. Examination of the 'ant' and 'white ant' entries in *DEDR* shows how improbable the uniting of the two meanings in one etymological group would be; Pfeiffer's suggestion that SDr. **eṭumpu-* (or **eṟumpu-*) 'ant' (*DEDR* 864) and CDr. (plus Pa. Ga.) **elump-* 'white ant' (*DEDR* 837) be united is phonologically not very sound. On semantic grounds, then, to unite *īm-* and *cīm-* is not plausible, and the required loss of **c-* in Kur.-Malt. is ruled out. We are left with only the instance of the preceding paragraph, which indeed is not certain.[16]

15. Burrow's paper (1947, pp. 146-47) attempted a chronological statement of the loss of **c-*. It must have been completed before the Tamil-Malayalam and Telugu palatalization of **k-* to *c-* before front vowels began, since in fact there are no instances of loss of the *c-* resulting from this palatalization. Since the results of the palatalization are already completely seen in the earliest Tamil texts, this provides a lower limit before which the loss of **c-* took place (the Telugu palatalization is probably much later, since, although it is attested already in inscriptions of the 5th century A.D., in 8th century inscriptions some non-palatalized forms are still found [Krishnamurti 1961, p. 10, §1.18 and note 21; Subrahmanyam 1983, pp. 293-94]). Unfortunately, no completely certain dating is yet possible for Tamil. Burrow says "somewhat later than the Christian era"; Zvelebil (1975, p. 46) says: "The earliest corpus of a highly developed Tamil literature may be dated roughly between 100 B.C. and A.D. 250." On the other hand, Burrow notes that the loss of *c-* and the sibilants took place also in the earliest layer of borrowings from Sanskrit-Prakrit (e.g., Ta. *ālai* 'apartment, hall, elephant-stable', [Ko. *a·l* 'cowshed', To. *a·s̄* 'Toda house']: Skt. *śālā-*, Pkt. *sālā-* 'house, hall, shed, stable' [*DBIA* no. 165]; Ta. *āvam* 'bow-string': Skt. *cāpa-*, Pkt. *cāva-* 'bow'), which he thinks of as having come into the languages of the South during the Mauryan period (*c.* 322-183 B.C.). He notes also the equation of the name of the Tamil king/chief Atiya-māṉ Neṭumāṉ Añci with Satiya-puto in an Aśokan inscription (middle of the 3rd century B.C.); if this equation is correct, at the time of Aśoka the loss of *c-* had not yet taken place. This bracketing yields a very short period for the two changes to have taken place; it is however the only hypothesis advanced so far.

It seems probable that this chronological attempt is too simple, even for Tamil-Malayalam, since within this language/dialect group there are failures of the loss to occur uniformly (e.g., in 2498, 2542, 2693, listed in §13; 2815, in which all SDr. and Telugu have *ēr*, but the Jaffna dialect of Tamil has *cēr*; 2315, in which there is loss of **c-* almost generally in SDr., but retention in Tulu, one Kannaḍa dialect, and two tribal languages of the Nilgiris). The chronological statement is of some value. It must, however, be realized that the evidence indicates that the loss of **c-* is found in only a small part of the lexicon, and that it tends to affect each item differently over the various parts of the whole SDr. (and Telugu) area. In other words, as regards this historical development, it never covered all the relevant part of the lexicon, and what it did cover it covered unevenly through the relevant geographical area; a neo-grammarian type of treatment is inadequate.

16. Although the loss of **c-* in SDr. and Telugu might seem to be parallel to that seen in those Gondi dialects that have zero as the regular development of **c-* in initial position, there can be no question of a connection between these two results, quite apart from the chronological consideration that the Gondi development must be a rather recent loss of *h-* (<*s-*). There is no evidence that the southern loss went through the stages seen in Gondi (**c->s->h->*zero). Against such a hypothesis is the evidence from Malayalam, Koḍagu, lower class Kannaḍa, upper class Telugu, and possibly even the southern Holeya dialect of Tulu (see Appendix I), that the loss took place while **c-* was still an affricate in pronunciation. That is, the loss was a one-stage process, and not comparable to that seen in Gondi.[17]

17. The examination of this sporadic development must not lead us to say that the Dravidian family does not in many of its historical developments yield to classical, neo-grammarian treatment; i.e. many of the statements of development cover the whole lexicon without presenting problems which are insoluble in such terms. The problems that arise with regard to **c-* are extreme and symptomatic of a peculiar liability to instability in this phoneme in the initial position. Two of the symptoms of such instability have now been examined, viz., (1) sporadic loss of **c-* in the southern area consisting of SDr. and Telugu, and (2) development of the affricate **c-*, by loss of the stop feature, to a sibilant in parts of SDr. and CDr. (and then to *h-* and zero in smaller sections of CDr.). It remains to examine the sporadic developments of **c-* to *t-* and *k-*. Granted in advance that both developments are well attested (to be demonstrated in detail in §§20-29), general considerations are undertaken at this point.

It may be noted that the instability of **c-* results from its phonological peculiarity as an affricate within a system of non-affricated stops. It has been stated at the beginning of this treatment (§2) that in Dravidian there are six positions of articulation for 'stops'/'plosives'. Of these , word-initial occurrence admits only four—velar, palatal, dental, labial. Of these only the palatal (**c-*) has the feature of fricative release, the other three have no affrication.

*c- is then more complex than the other members of its sub-system, and, as the evidence shows, is consequently liable to simplification. This is, statistically, most often achieved by loss of the stop feature and retention of the affricate release, i.e. a sibilant. Much less often, there is loss of the affricate release and retention only of the stop feature.[18] A problem of how this is to be realized at once arises, since there is not in the system a 'palatal stop'. This is resolved by a shift to the nearest position of articulation within the initial sub-system, i.e. either to the dental position (*t*-) or to the velar position (*k*-). The tip of the tongue being "the most mobile organ of articulation" (to quote Nartey, as we did in §8), the dental stop *t*- is the substitution to be most probably expected, and statistically *t*- is more often found as a substitute for *c-, but both *t*- and *k*- are found in the etymological groups. In Toda *c- is regularly represented by *t*-, i.e. the development that elsewhere does not spread through the whole of the lexicon, here has spread throughout (Emeneau 1953). Tulu in certain non-brahmin dialects of the northern coastal area also has this development (obscured to some extent by inter-dialectal borrowing; see Appendix I). Apart from this, it must be emphasized, *c->*t*- is entirely sporadic in its incidence. *c->*k*- is probably just as much so, even though there has been an attempt (Emeneau 1961; unsuccessful) to find some regularity in NDr.

When it is recognized that occurrence of *c*-, *t*- and *k*- in an etymological group looks towards a reconstruction of PDr. *c-, several of the etymological problems that have in isolation presented difficulties now are solved; e.g., (in §28) 2591 'wing, feather'; 2684 'to curl, coil, etc.'; 1514 'fire'.

In the paragraphs that follow (§§18-29) the evidence is presented in detail for replacement of *c- by *t*- and *k*-.

18. (2) Evidence for replacement of the unstable *c- by *t*- should be presented in some detail, since the preliminary and incomplete treatments by L. V. Ramaswami Aiyar, Burrow (1947, p. 142), Bh. Krishnamurti (1961, pp. 12-13, §1.23; pp. 89-90, §1.213), Zvelebil (1970, p. 106), and P. S. Subrahmanyam (1983, p. 321) are all rendered premature by the material now available in *DEDR*; Burrow's hope (loc. cit.) that he could treat the matter fully in future cannot be fulfilled. As a preliminary the Toda regular replacement of *c- by *t*- should be discussed.

19. The regular correspondences for *c- include Toda *t*-. This was demonstrated in Emeneau (1953) from the etymologies available at that time. Counter-examples of Toda *s*- for *c- were taken to be borrowings from neighbouring languages, especially Tamil and Badaga. It was also shown that borrowings of Indo-Aryan words beginning with a palatal stop or a sibilant, through the intermediacy of the same neighbouring languages, showed sometimes *s*-, sometimes *t*-. Since such a recent borrowing as *tokwal* 'prison, sentence to prison' (<Skt. *śṛṅkhala*- 'chain'; cf. Kannaḍa *saṅkale*, *saṅkōle*) has *t*-, it seems clear that *c-: To. *t*- is still at times a living correspondence in

borrowings, even though it may be overridden often by *s-* of the immediate source of the borrowing.

A considerably greater number of examples of the *t-* correspondence are available now than in 1953. A list of etymological groups in which they occur will suffice, with some notes on a few of them. The *DEDR* references are as follows: 2322 (Ta. and Ka. have both *c-*/*s-* and *t-*, to be dealt with in §21; To. *toθx-* 'to be squeezed or smashed flat' corresponds to Ma. *catuṅṅu-* [<**catuṅk-*] 'to be crushed, compressed'); 2470; 2498; 2499; 2596 (To. *tin-goṇy* 'bag of coins [*tin*] used at funerals', alongside of *sin* 'gold; ear-ring'); 2625 (To. *ti·r* 'nit': Ta. *īr*, Ko. *ci·r*, Ka. *īr*, *sīr*, Go. *sīr*, *hīr*, *īr*, Kur. *cīr*); 2632; 2654; 2673; 2684; 2687; 2698 (To. *tüṭy* 'deep pool', *tuḍy-* 'to move in a circle': **cuṟi*; for *tü·s* 'churnstick': **cuṟal-* 'to revolve', see §23 and Emeneau 1974, p. 12); 2702; 2715; 2775; 2778; 2792 (but see §21); 2796 (To. *tergy* 'corner of a garment' has *r* instead of the expected *ṟ*, and also an unexpected *-y* [<**-i*]; otherwise Ka. *seṟaṅgu* is a good correspondent; probably a borrowing from Badaga which would have modern Ka. *r*); 2821; 2865; 2883; 2885 (probably *t-*<**c-*, rather than **t-*; see §21); 2891; 2897.

A few items involve uncertainties:

2330 Ta. *capam*, *cavam* 'bamboo' (<Ka.), Ka. *capa* 'bamboo cane', To. *tef* 'sp. bamboo used in building'. The vowel is uncertain, but may be an instance of the alternation of *a* and *e* after *c-*.

2395/2400 To. *tofïr* 'afterbirth (of goddess or buffalo)'. This is listed both with 2400 Ta. *cavvu* 'membrane as of the diaphragm or the eye, envelope round the pulp to a fruit, etc.', Ma. *cavvu* 'the omentum', and with 2395 Ta. *cavaṟu* 'rubbish, sweepings', Ma. *cavaṟu*, *cavar* 'green leaves and rubbish used as manure, sweepings'. The latter is better for form, but the former possibly for meaning.

2562 To. *twa·loẓn* 'spider': Ta. *cilanti*, *cilampi*, Ma. *cilanni*, Ka. *seladi*, *selandi*, Te. *celāḍi*, *celagamu*. The query with the Toda entry in *DEDR* can now be removed, since Irula (communicated by Professor Zvelebil) has *colandi* (*c*=*s*), which provides the vowel *o* (unexplained, to be sure) with which Toda *wa·* (=**ō*) corresponds; the (unexplained) length of the Toda vowel is guaranteed as a correct recording by *twáljen* (Friedrich Metz, *Madras Journal of Literature and Science* 18.17 [1857]). Other problems in the Toda word are *l* rather than *ṣ*, *ẓ* for **nti* (?), and the final *-n*.

2721 To. *tu·ṭ* 'front tuft of hair' has been entered with Ta. *cūṭu* 'to wear, esp. on the head; etc.', n. 'hair tuft, crest, comb', *cūṭṭu* 'to adorn with garlands, crown', n. 'adorning as with crown, garland, crest, cock's comb' (also Ma.), Pa. *cŭṭa* 'woman's hair tied in knot', Ga. *sūṭe* 'a type of man's hair style', etc. It might almost as well belong with 2684 (**curuḷ-*) To. *tu·ḷ-* 'to be rolled up (curl, leaf)', *tu·ṭ-* 'to roll up (*tr.*), curl (hair), tie up (hair)', with which for meaning cf. Tulu *turṭu* 'a female's hair tied into a knot'.

2781 To. *talc-* 'to cause to be well-known (to a person), inform' has been entered with a query with **ce*/*al-* 'to go, be acceptable, etc.' The query denotes

uncertainty as to meaning; but Kota has 'inform' as one meaning of *calc-*, and one meaning given for Ka. *sal* 'to enter, be valid, proper or fit, etc.' is 'to become well-known or famous'.

Borrowings from Indo-Aryan that have *t-* in Toda are: *totm* 'strength' (Skt. *sattva-*); *todoṇm* 'sandalwood' (Skt. *candana-*; see *DEDR* 2448); *DBIA* 139 *tegaṣ* 'chain', *tokwal* 'prison; leg-chains (of elephant)' (Skt. *śṛṅkhala-*); 146 *tarx̄* 'bronze food vessel' (Skt. *saraka-*); 158 *to·ṛy*, *to·ḍy* 'broad storage basket' (:Ko. *ca·ry* id., Ta. *cāṭi* 'jar'; Prakrit *cāṭī* 'jar, waterpot'); 163 *ta·m* 'millet' (:Ta. *cāmai* id.; Skt. *śyāmaka*, Hindi *sāmā*, *sa̐wā* id.); 167 *ti·sïl* 'tin' (: Ko. *ti·cl* id., Ta. *cīcam*, Ka. *sīsa* 'lead'; Skt. *sīsa-* 'lead'); 169 *tu·ry* 'knife' (: Ta. Ka. *cūri*, Ko. *cu·ry*; Skt. *chŭrī-*); 172 *twï·zm* 'a bet' (:Ko. *cu·jm*, Ka. *jūja*, *jūdu*; Skt. *dyūta-*, Pali *jūta-*, Prakrit *jūḍa-*, *jūa-*); 179 *twï·ṛ* 'a pair' (: Ta. *cōṭu*, Ka. *jōḍu*; Hindi *joṛ*; for IA, see *CDIAL* 10496 **yuṭati*, **yōṭa-*, etc.). *DBIA* 211 *ti·* 'the most sacred grade of Toda dairy', *ti· ïr* 'the buffaloes of the *ti·* dairy'; in Emeneau 1953, pp. 106-8, derivation of *ti·* from Skt. *śrī* was discussed at length, and the relationship with Ta. *tiru* and *cī* (<Skt. *śrī*); though it would be tempting, considering Ko. *tir im* = To. *ti· ïr*, to find that Ta. *tiru* is the intermediate form and that this is an instance of the contraction **iru*<To. *i·*, this is ruled out by the fact that the condition for such contractions in forms with Dravidian etyma is a following retroflex (Emeneau 1958, pp. 60f.); the intermediate form must be Ta. *cī*.

20. The data with sporadic replacement of **c-* by *t-* are presented in two sections: (a) groups in which beside the evidence for **c-* there are sporadic instances of *t-*; (b) groups in which beside **c-* and sporadic instances of *t-* there are also sporadic instances of zero in the southern languages. There is no particular reason for making the division except convenience. When replacements of **c-* by *k-* are presented later, those groups also will be presented which show *c-*, *t-*, and *k-* (also zero).

Toda items are generally omitted, since regularly **c-* > *t-*, and so also for Tulu, since it cannot be determined whether **c-* or **t-* is represented, without knowledge (which we generally do not have) of the dialectal distribution of the forms given in the dictionary sources, especially the forms of the brahmin dialect (see Appendix I).

The rare reverse replacement of **t-* by **c-* is not really relevant to the subject of this paper, but treatment of the matter is undertaken in Appendix III.

21. (a) **c-* is sporadically replaced by *t-*.

2322 **cat-* (with various suffixes) 'to be crushed, broken; to beat, crush, bruise, destroy' in Ma. Ko. Te. Pa.; Ta. *catai*, etc., *tatai*, *tatar*, Ka. *sade*, *tade*, *sadaku*, *tadaku*, *taduku* (cf. Ma. *catukk-*), etc.

2335 **capp-* (with suffixes mostly containing a retroflex) 'to clap, slap', in Ta. Ko. Te. Go. Manḍ. Kui Kuwi; Ka. *cappaḷisu* 'to slap, pat', *tappaḷisu* 'to clap the hands'.

2356 Ta. Ma. *caraṭu* 'cord, rope, necklet', Ko. *carḍ* 'neckband' (probably <Ta.), Te. *t(r)āḍu* 'cord, rope', Kol. *ta·ḍ* 'rope' (<Te.).

2436 Ta. *cāci* 'mother's milk', Te. *cāci* 'breast', Ka. *cāci*, *tāci* id.; all these are children's words.

2618 **cīnt-* 'to blow the nose, sneeze', in Ta. Ma. Ka. Te. Kol. Ga. Go. Konḍa Kui Kuwi; Pa. *tĭd-* 'to clear the nose'.

2666 Various forms for 'penis', including Te. *culla*, *culli*, Kur. *coṇḍō*, Ta. Ma. *cuṇṇi*: Ka. *tuṇṇi*, *tuṇṇe*.

2668 **cutti/e* 'hammer', in Ta. Ka. Te. Go. Kuwi; Ma. *cutti*, *cuttika*, *tutti*.

2710 Ta. *cuṟavam*, *cuṟavu*, *cuṟă* 'shark', Ka. *coṟa*, Te. *cŏ̄ṟa*, *soṟa*: Ma. *cuṟā*, *śrāvu*, *tuṟāvu*, *ciṟāku*.

2715 **cuṟṟ-* (also **cuṟay-*, **cŭṟ-*) 'to revolve, spin, whirl, etc.; put on (cloth, turban)'. **c-* in Ta. Ma. Ko. (To. *t-*) Koḍ. Ka. Te. Kol. Pa. Ga. Go. Konḍa Kui Kuwi; Kui also *t-*, *tusa* 'to gird' (query should be removed in *DEDR*).

2727 Ta. Ma. *cŭral* 'rattan': Koḍ. *tu·ra* 'a cane'.

2733 **cŭl-* 'pregnancy; child; to become pregnant', in Ta. Ma. Ka. Te. Kol. Kuwi; Ga. *tŭl* 'pregnancy (of animals)'.

2759 Ta. *ceṭi* 'light, splendor', Ka. *siḍil* 'shaft of lightning, thunderbolt', (dialects) *seḍilu*, *ceḍlu* 'thunder': Koḍ. *tëḍï* 'thunder', *t. minn-* 'to lighten'.

2792 Ma. *ceḷḷu* 'flea, tick', Koḍ. *ceḷḷï* id. : Ta. *ceḷḷu* id., *teḷ*, *teḷḷu*, *teḷku* 'flea'. Given the Ta. forms with *c-* and *t-*, it may be considered uncertain whether To. *töṭ* 'flea' is from **c-* or **t-* in the immediate pre-Toda form; Ko. *cek* 'flea' looks to **ceḷku* (cf. Ta. *teḷku*) as its origin.

2821 **cēṟay* 'handful (held in the hollow of the palm)', in Ta. Ka. Te. Go. Konḍa Kui Kuwi: Ko. *de·r*. To. *teṟ* with short vowel is probably not closely related to Kota with long vowel, but derived from a form like Ka. *sere*, Tu. *serè*, Kuwi *hera*.

2835 **coṭṭ-* 'to fall in drops', n. 'a drop', in Ta. Ko. To. (borrowed *swïṭ-*) Go. Br.: Ka. *toṭṭu* 'a drop', *toṭakkane* 'in drops', Te. *coṭa coṭa* 'onom. of the action and sound of liquid leaking or falling in drops', *toṭṭu* 'to flow, ooze' (this last possibly <Ka.).

2865 **coṟ-* (with various suffixes, esp. **-i*) 'to itch, scratch', n. 'itching, the itch; nettle, cowitch' (the former apparently *Urtica heterophylla*, the latter certainly *Mucuna pruriens*), in Ta. Ma. Pa. Ga. Go. Kui Kuwi. Ka. has numerous *t-* forms based on *tuṟi* 'itching, the itch, etc.'; for *Mucuna pruriens* the dictionary gives *cuṟa/uci*, *tuṟa/uci*, *tuṟi/uce*. Ko. has *toyr-* (past *torc-*) 'to itch', *toyr(v)* '*Urtica heterophylla*', and also *corŋg* 'an itch', which may be borrowed from a Tamil dialect such as that of Kollimalai (Salem district) which is recorded as having *coraṅk* 'itching'. To. *twaṟy* '*Urtica heterophylla*' represents **coṟi*, but it is uncertain whether *t-* is a direct continuant of **c-* or is equivalent to Ko. *t-*. Te. has *durada* 'itching'.

2883 **cōr-*, **cor-i-*, etc. 'liquid to flow (esp. in drops or oozing); to pour out (esp. gently or by drops)' (in Ta. Ma. Ko. To. Ka. sometimes reference

to milk being secreted in breast or udder ready for milking or oozing out). Ma. Kol. Pa. Ga. Kur. *c-*, Te. Nk.(Ch.) Go. *t-*, Ta. Ko. Ka. Konḍa Malt. and possibly Br. both *c-* and *t-*. To. *twar-*, n. *twar* refer only to milk in udder, and since for this Ko. has *corv-*, To. *t-* is probably immediately from **c-*. Ko. otherwise has *toyr-* (past *torc-*) 'to pour out liquid or grains, doing the action slowly' and *jo·r-* '(tears and snot) run in streams'. Koḍ. has *t-* in the verbs *to·r-* 'to leak', *tori-* 'to pour'; *co·re* 'blood' is probably influenced by Ma. *cōra* id. (cf. Ta. *tōrai* id. and *-tōr* in *neyttōr* id.); what Shanmugam recorded for Koḍ., *cōr-* 'to leak', is probably influenced by Ma. *cōru-* or Ka. *sōr/jōru*.

2885 (correct in *DEDR* for misprint 2835) **cōr* 'dove, pigeon'; Ko. *co·r*, ĀlKu. *co:re*, Ka. (Gowda dialect) *cōrE*: Koḍ. *to·re pakki* (*pakki* 'bird'). In To. *twar fïṭ* (*pïṭ* 'bird'), *t-* is ambiguous but probably <**c-*; the short vowel (**o*) is unexplained.

2891 Ta. *cōlai* 'garden, grove', Ma. *cōla* 'grove', Kur. *cālā* id., Malt. *cále* id.: Ko. *te·l* 'forest', To. *twa·s* 'grove, thicket'. Ko. and To. can hardly be separated; both represent sporadic **t-* of proto-Nilgiri. The vowel *e·* in Ko. is the regular development of **ō* before **ay* (>**e*) of the following syllable. There is no evidence looking towards Pfeiffer's reconstruction of **-ō-* as **-av-*V-, by which he would explain Kur.-Malt. *-ā-* (1972, p. 24, no. 113); this vowel is still unexplained.

2539 Ta. *cemmal* 'water', Te. *cemma*, *temma* 'moisture, dampness', *cemaru* 'to become wet in sweat', *temaḍa* 'phlegm, mucus' (cf. Tu. *temma* 'a cough, cold'), Kuwi *jimbri pīyu* 'drizzle, mist'; (Kur. *simdhārnā* 'to become damp' is doubtful because of *s-* rather than *c-*; see §6.11). It has been suggested (Krishnamurti 1961, pp. 362f., s.v. *cemaru*) that these are borrowings (and adaptation) from Indo-Aryan: *CDIAL* 5820 *tīmyati* 'becomes wet', 5948 *tēma* 'the becoming wet', 5956 **taimya-* 'wetness' (→Hindi *tem* id.), and 13419 **simm-* 'ooze' (e.g., Panjabi *simm-* 'to ooze', Nepali *sim* 'marsh, bog'). This seems on the whole unlikely, since the IA *s*-forms are semantically not close and geographically are removed from the Dravidian area, and the Te. *t*-form has *e* rather than *i*; Te. *tēma* 'moisture, dampness; moist, damp' is a borrowing of Skt. *tēma-*. The most that seems plausible is that Te. *temma* is a contamination of *cemma* and Skt. *tēma-* or Hindi *tem*.

22. The three instances in this paragraph are difficult and have been judged otherwise previously, but it now seems probable that they are in fact to be considered instances of **c-*>*t-*.

2680/3512. These two groups must certainly be related: 2680 Ka. *suy* 'to breathe, sigh', n. 'breath, a sigh', *suyil(u)*, *sũlu* 'breath, a sigh', Ko. *ci·l* 'air, blast of air from bellows; life; noise, small noise', Pa. *cuyk-* 'to sob' (with a query), (Tulu forms with *suy-* and *tuy-* are non-diagnostic as to the initial); 3512 Ta. *toy* 'to breathe short and hard (as in asthma)', Koḍ. *tuy^{n}-* '(snake) hisses, (bull) snorts in anger'. To. *tüy-* 'to breathe heavily' has been placed in 3512 on grounds of meaning, but its *t-* might as well have placed it in 2680; it is non-diagnostic. Apart from the initials, the phonology of the vowels is

difficult. The items in 2680 look to **cuy-*. Those in 3512 are indeterminate as to the vowel plus *y*: Ta. has *-oy-*, but Koḍ. *-uy-*, and examination of parallel sets leaves the solution uncertain;[19] we must state the reconstruction with an unsolved choice of vowel as **tu/oy-*. As to the initial, apart from the Pa. item, we have on the one hand Ta. and Koḍ., i.e. SDr. minus Ka., *t-* (which may be bolstered by To. without changing the *DEDR* grouping), and on the other hand Ka. and Ko. **c-*; this leaves it indeterminate which languages have the innovation. If the Parji evidence is to be taken into account, it will speak for original **c-*. The Pa. item, *cuyk-* 'to sob', though its inclusion in 2680 is queried, looks like a plural action formation with suffix *-k-*[20] from an unattested Parji base **cuy-*; sobbing would have been a repetition (plural action) of breathing hard (with noise). The inclusion in 2680 seems unexceptionable.[21] This *c-*, then, in a language other than SDr. looks to reconstruction of PDr. **cu/oy-* for the two groups.

In two further groups (entered in *DEDR* under **t-*) it is probable that **c-* is original.

3362 Ta. Ma. *tuḷir-* 'to bud, sprout', n. *tuḷir*: Ka. *suṟi*, (dialectal) *suḷi*, *tɔḷəlu* 'sprout', Koḍ. *cuḷi* 'leaf shoot', Malt. *cúle* 'to sprout', *cúlo* 'blade of grass or corn'. The agreement of Ka. and Koḍ in SDr. (Tulu with *s-* is non-diagnostic) and Malt. in NDr. should be convincing for reconstruction with **c-*; Ta. Ma. and one Ka. dialect with *t-* have innovation. Connection with 3131 **taḷ-* of identical meaning in SDr. Te. Kuwi is difficult because of the vowel difference.

3558 *tōl-* 'to be defeated' in Ta. Ma., **cōl-* id. in Ko. Koḍ. Ka. (To. *twï·ɬ-* is non-diagnostic, as is Tu. *t/sōl-*). The distribution seems to indicate that **c-* is original for SDr. with *t-* as a Ta. Ma. innovation.

23. (b) **c-* is sporadically replaced by *t-*, with occurrences of zero in SDr. and Telugu.

2359 **cara-*, **carac-* 'snake'. **c-* in Konḍa *saras(u)*, Kui *srāsu*, *srācu*, Kuwi *rācu* (<*sr-*), Pe. *rāc*; *t-* in Go. *taras*, *tarās*, *tārs*, Te. *trāčcu*, Ga. *tāsu* ('krait'), Maṇd. *trehe*; zero in Ta. *arā*, *aravu*, *aravam*, Ma. *aravu*, *aravam*.

2360 **car-*, **cari-* 'to slip, slide, give way, lean, incline, etc.'. **c-* in Ta. Ma. Ko. Ka. Te. Kol. Kuwi Malt.; Ma. also zero; *t-* in Koḍ. *tari-* 'to bend to one side' (the query in *DEDR* is probably unnecessary).

2408 **caḷi*, **caḷḷ-* 'cold, cool'. **c-* in Ka. Te. Ga. Konḍa Kuwi; *t-* in Pa. *talla* 'coolness' (Koraga [Onti dialect] *talli* 'cold' is still hard to evaluate since this dialect is much influenced by Tulu); Ta. has *caḷi*, *taḷi*, *aḷi* 'coolness, cold'.

2456 **cāy-* (a wide range of meanings including 'to incline, bow, descend, lie down; lower, level the ground in a field'). **c-* in Ta. Te. Maṇḍ. Kui; *t-* in Koḍ. *taye-* 'to level field'; Ma. has *c-* and zero (*āyka* 'to bend as for an exertion', *āñcuka* 'to bend forward, incline, bow').

2460 **cār-* 'to approach, be near, reach, be united'. **c-* in Ma. Ko.; **c-* and zero in Ta. Ka. (*ār* 'to combine with, be united' in both); *t-* in Te. *tāru*

'to approach, go near, move about, wander', *tār(u)cu* 'to bring together, join'.

2498 **cikk-*, **cilk-*, **cirk-* (? *r̲*) 'to be entangled, caught'. **c-* in Ma. Koḍ. Ka. Te. Kol. Pa. Ga. Go. Kui (<Te.); Ta. *c-* but also *ikal* 'intricacy'. Ko. *cik-* 'to be caught', *tik* 'tangle in hair', but To. *tik-* 'to be trapped', *sik* 'tangle in hair' (<Ta. or Ka.); Ko. *tik* has *t-*<**c-*.

2673 **cupp-*, **cuval* (**-uva-*>*-ō-*) 'green leaves, twigs'. **c-* in Ta. Ma. Ko. Ka. Koḍ.; Ta. has also zero (*cuppal, uval*); *t-*, as well as *c-*, in Ma. (*cappu, tōl*), Ka. (*so/appu, to/appala, toval*), Koḍ. (*cappala, toppï*).

2698 **cuṟ-* (with various suffixes *-i, -al, -aṅku,* etc.; also Ta. Ma. *cūṟ-*) 'to turn around, revolve, roll, whirl, wander, etc.'. **c-* in Ta. Ma. Ko. Ka. Te. Kur.; *t-* in Kui (*ḍuṛi*<**tuṛi, ḍoḍga*) and in Ka. also (e.g., *tuṟi, suṟi, toṟal*); in SDr. and Te. also zero, Ta. (*uṟal, uṟi*, etc.), Ma. Ka. Te. (*ḍollu*<**uṟal-*). Go. (Koya dialect) *uḍ(ḍ)-* shows the regular development of **cuṟ-* in this dialect, but, since no other Gondi form is recorded, is possibly, with Koya development of the initial, from the Telugu form *suḍiyu*, which is found already in early Te. literature and is taken to be a loan from Ka. *suṟi* (Krishnamurti 1961, p. 21, §1.45); this Go. form is misplaced in *DEDR*, in 2698(b) Ta. *uṟal* instead of 2698(a) Ta. *cuṟaṅku*.

5155 **cā/ēm-* 'tortoise'. **c-* in Go. (Chanda) *hēmul*, (Daṇḍami Maṛia) *hemūl*, (Hill Maṛia, Koya) *ēmul*, (Muria) *samel, hamul*, (Koya Su.) *yāmōl*, Pe. *hāmaṇ*, Kui *sēmbi*, Kuwi (Bisamkatak) *hēmbi*; *t-* in Te. *tāb̆ēlu, tāmēlu* (Ka. *tābēlu, tāmbēlu*, Konḍa *tāmbel(i)*, Kuwi (Israel, etc.) *tāmbeli* are<Te.); zero in Ta. *(y)āmai*, Ma. *āma,* Ko. *e·m(b)*, ĀlKu. *e:me*, Irula *e:me* (*a:me* probably<Ka. or colloquial Ta.), Koḍ. *a·me*, Ka. *āme, āve, ēve,* (dialectal) *ēme, ālve*, Tu. *ēme* (for *y-* in Ta., treatment is still necessary); To. *o·m* (communicated by Professor Zvelebil) has *o·* unexpectedly instead of *a·* (cf. *a·n* 'elephant'<**yānay/ēnay*; Subrahmanyam 1983, p. 389). This group is placed in *DEDR* in the section with initial **y-* rather than with **c-*; Burrow (1947, p. 142 top) lists the group as if he intended reconstruction with **c-*; Subrahmanyam (1983, pp. 389-90, no. 1102) reconstructs with alternating initial **c-* and **y-*.

Tabulation by languages of the occurrence of *t-* yields at least one occurrence for each language of the family, but one or two or three occurrences can hardly be significant, given the very different sizes of the available vocabularies and lexica. The larger numbers of occurrences are all in the southern languages, including Telugu, but for these we have the largest lexica: Ka. 9, Te. 8. These two lists have only three items in common; the occurrence of *t-* is indeed sporadic. That two of the smaller vocabularies, viz., Koḍ. and Ko., have as many as 5 items each, with no overlapping items, may be in some way significant.

Another suggested instance of **c-*>*t-* is of a different character, in that *t-* occurs in as wide a language spread (or even wider) than does **c-*. 2408 **caḷ-* (see above in section) and 3045 **taṇ-*, both of which have 'cool, cold'

meanings, have been taken to be etymologically related (*DEDR* notes this by 'cf'. in both entries). There are clear instances of the alternation of -*ḷ*- and -*ṇ*- in an etymological group (Krishnamurti 1961, p. 41, §1.93), e.g., **koḷ-/koṇ-* 'to buy, take'. Krishnamurti (loc cit. and p. 12, §1.23) further relates 2408 **c*- and 3045 **t*- as an instance of **c*-<*t*-; the wide range of both **c*- and **t*- in the SDr. and CDr. languages makes this a little difficult to accept, unless the change and wide spread of *t*- are put back into PDr. In any case, it seems better to put Te. *cannīḷḷu* 'cold water' in 2408 (<**cal-nīr*-) rather than, as in DEDR, in 3045 (as an instance of* *t*->*c*-). Kur. *cãy*- 'to get wet' is related to these groups with the greatest difficulty (as Pfeiffer says and as *DEDR* indicates by its query).

24. (3) Replacement of the unstable **c*- by the velar *k*- has been prematurely treated (Emeneau 1961) in a neo-grammarian attempt to explain some NDr. instances as conditioned by the following vowels. The attempt was premature in that there are exceptions to the attempted statements and in that there are also instances of replacement of **c*- by a velar in other languages and before other vowels than those that appeared in the statements made. Collection of all the instances shows that replacement of the palatal by a velar is 'sporadic' in the same way that is complete loss of the palatal or replacement by *t*-. Earlier treatment (e.g., by Pfeiffer 1972) has made great play of the unexpected, and even unmotivated, direction of change from palatal to velar; an attempt has been made to find a motivation and rationale in §17.

25. The 1961 treatment was motivated by recognition of a number of clear etymological groups[22] in which the PDr. **c*- which appeared in the majority of the languages was represented in NDr. by velars which in part failed to follow the rules which otherwise govern development of velars in the NDr. languages. These rules, incompletely stated previously (Burrow 1943, pp. 132-39), were finally worked out by Pfeiffer (1972) as follows:

		Kur.	Malt.	Br.
*k-	before u, ū	k-	k-	x-
	before i, ī	k-	k-	k-
	before other vowels	x-	q-	x-

In Kur. *k*- sporadically varies with *kh*- and *x*-, in Malt. with *q*-.

My 1961 treatment of **c*- resulted in the following statement:

*c-	before most vowels	c-	c-	c-
	before e, ē	k-	k-	k-
	before u, ū	k-	k-	k-

Just as for **k*-, there are sporadic occurrences in Kur. of *kh*- and *x*-, in Malt. of *q*-.

The most striking inconcinnity here is that the etymologies with **c*- have *k*- before **ĕ* in all three languages while those with **k*- have the developments

Kur. and Br. *x*-, Malt. *q*-. It was thought that the same was true for the etyma with **ŭ̄*, but Pfeiffer's examination of the Kurux material yielded the correct statement for **k*- before *ŭ̄*; it is now only in Brahui that **c*- and **k*- are differentiated in this environment.

26. It has now become clear that there are exceptions to the neo-grammarian type of statement that was made in 1961, for **c*-. Examples of **c*->*c*- before the vowels **u* and **ĕ̄* are: 2696 Br. *cugh* 'nape of neck' (: Ta. *cuval* id., *cekil* 'upper part of shoulders', Ka. *tegal* 'shoulder', Kui *sukol/ṛi* 'shoulder-blade'); 2789 Kur. *cēxel* 'greens' (*aṛxā-cēxel* 'plants in general'), Malt. *ceġlu* 'small branches' (: Ta. Ma. *ceṛi-* 'to grow well as vegetation, be fertile'; pointed out by Pfeiffer [1972, p. 51, no. 312]<**ceṛ*-V-*k*-V*l*; quoted by Subrahmanyam [1983, p. 323]); 2751 Kur. *cegalo* 'bark of tree', Malt. *ceglo* 'shell of fruit' (: Ta. *cekiḷ* id.); 2812 Malt. *cénde* 'to remove in small quantities from a heap' (: Ta. *cēntu* 'to draw, as a rope running over a pulley', Ka. *sēndu*, Te. *cĕ̄du* 'to draw up water from a well', etc.).[23]

Of equal importance with the identification of exceptions is the fact that **c*- appears in NDr. as a velar before other vowels than **ŭ̄* and **ĕ̄*, e.g., before **ī* in 2617 (Kur. *kĭ̄ndā* 'date-palm': Ta. *īntu*, Pa. *cīnd*, Go. *sīndi, hīndi, īndi*), and possibly in 1606 (see §29). This invalidates the statement given in §25 from the 1961 treatment of **c*- in NDr. The further fact that **c*- appears as a velar in other languages than NDr. is seen, e.g., in 2599 (To. *ki·p* 'broom': **cī*-, **cīpp*-, etc.), 2274, 2797, etc. (see §28).

It is necessary, then, as was stated in §24, to recognize the sporadic nature of the appearance of **c*- as a velar. Even if there are more certain instances of this development in NDr. than elsewhere, the development there has not affected all the possible instances in the lexicon. The phenomena are on all fours with the dental development and the total elision treated above.

27. The data on which this discussion has been based should be presented in some detail.

A number of groups show only **c*- and *k*-, several show also loss, others show **c*- and replacement by *t*- and *k*-, or all the possibilities, i.e. **c*-, *t*-, *k*-, zero, may appear. Simpler instances are presented first, to be followed by the more complex and the more uncertain.

28. The groups in which **c*->*k*-.

2599 **cī*-, **cīpp*-, **cīcc*-, etc. 'to sweep, wipe off', n. 'broom'. Many of the languages Ta. to Malt. have **c*-; To. has *ki·p* 'broom'.

2484 **cā/ēṛu* 'sap, broth': **c*- in Ta. *cāṛu*, *cēṛu*, Te. *cāru*, *cēru*, but only **cāṛu* in Ma. Ka. Tu. Kui Kuwi; *k*- in Pa. *kēd* 'broth', in which **ā*>*ē* before an alveolar (**ṛ*>*d*) according to the rule stated (but without this example) by Krishnamurti (1978b, p 254; followed by Subrahmanyam 1983, pp. 60-62, 70-73).

2797 **cĕr/ṛ* . . . 'centipede': Ma. *cēraṭṭa*, *tēraṭṭa* id., Ka. *jiṛale* id., 'cockroach', (dialectal) *girəle* 'cockroach', Te. *jeṛi, jeṛṛi* 'centipede', Pa. *jerri*, *cerri*

id., Konḍa *seṛi* id., Go. (Koya) *jer, jerru,* (northern dialects) *tiril* id. In this group **c-*, *t-*, **k-* appear in very sporadic distribution.

2617 **cīnt-* 'date-palm': zero in SDr. Te. (e.g., Ta. *īntu, iñcu,* Ma. *īntal,* Ka. *ical,* Te. *ĩta*); **c-* in Pa. *cīnd,* Ga. *sīndi,* Go. *sīndi, hīndi, īndi,* Konḍa *sītel, sīntel,* Pe. *hīndi,* Kui *sīta,* Kuwi *sīndi*; *k-* in Kur. *kĭndā* (not treated by Pfeiffer).[24]

2274 **cakkVḷ-*, **caṅk-* 'armpit; tickling, to tickle': **c-* in Te. *cakkili, caṅka, caṅkili* 'armpit', *cakkiligili, cakkiliginta* 'tickling', Kol. Nk. *sakka* 'armpit' (Kinwaṭ dialect of Kol. *saŋka* id. is<Te., since this dialect should have *c-*), Ga. *caŋka* id. (<Te.), Kur. *caŋgr-* 'to itch, be the seat of a titillation', *caŋgrt-* 'to tickle, titillate'; **c-* and zero in Ta. *caṅkam, akkuḷ* 'armpit', *akkuḷu* 'to tickle', Ka. *jaṅguḍi* 'the region of the arm' (?), *cakkaḷaguḷi,* etc. 'tickling another', *akkaḷike* 'tickling', *akaḷa-c/sakaḷa* 'excessive tickling', *jakkulisu* 'to tickle'; *k-* in Koḍ. *kakkuḷi* 'tickling'; zero and *k-* in Ma. *akkuḷam* 'armpit', *ikkiḷi, kikkiḷi* 'tickling', *kikkiḷikka* 'to tickle'.

2654 **cuṭ-* 'to be hot, burn, cook', **cūṭu* 'heat; torch', etc.: **c-* in Ta. Ma. Ka. Te. Kol. Nk.(Ch.) Go. Konḍa Pe. Kui Kuwi; **c-* and *t-* in Ko. Koḍ. (To. *tuṛ-* 'to burn (tr.)' is ambiguous, but considering Ko. *tuṛ-* 'to roast, bake (pots), burn (corpse)', To. *t-* probably represents **t-*); *k-* in Kur. Malt. *kuṛ-*. (Tu. is non-diagnostic.)

2687 **cur-* (with suffixes *-uṅk-*, *-ukk-*, *-uḷ-*, *-i-*, etc.) 'to shrink, shrivel, etc.': **c-* in Ta. Ma. Ko. To. (*tu·ḷ-*<**curuḷ-*) Ka. Te. Kol. Pa.; *k-* in Br. *kurr-*. (Tu. is non-diagnostic; Tu. items with *k-* in *DED* 2213 now appear in an unrelated entry *DEDR* 1778, for which see Emeneau 1961).

2677 **cum-* 'to carry on head'; various nouns meaning 'head-pad for carrying load' (e.g., Ta. *cummāṭu,* Ko. *tamṭ,* Ka. *simbi/e,* Te. *cumma,* Go. *summar, hummar, umar*): **c-* in Ta. Ma. Ka. Te. Go. Konḍa; *t-* in Ko.; *k-* in Kol. (*kunt-*), Pa. (*kumt-*), Ga. (*kumt-*) Kur. (*kum-*) Malt. (*kum-*) Br. (*kubēn* 'heavy'). Pa. *cumṭal* 'head-pad', Ga. *sumṭal* id. are probably loans from a language with **c-*, probably Te. (even though such a form is not in our Te. record).

2684 **cūr-*, **cur-* (with suffixes *-uḷ-*, *-uṭṭ-*, *-i-*, etc.) 'to curl, coil, roll up, revolve', n. 'spiral, curl (of hair), roll': **c-* in Ta. Ma. Ko. To. (*tu·ḷ-*<**curuḷ-*, etc.) Ka. Pa. Ga. Go. Pe. Kui Kuwi (*rū?-*< **curu. . .*); *t-* in Koḍ. (*turïḍ-*, *turïṭ-*); *k-* in Kur. (*kūr-*) Br. (*kūr-*) Malt. (*kurg-*). (Te. and Kui items with *d-/t-*, listed in this group in *DED* 2211, now appear in an unrelated group *DEDR* 3514.) With *DEDR* 2684 (**cūr-*, **curuḷ-*, etc.) are to be joined the items with *k-* in 1794 **kuruḷ-* 'to curl' (intr.), n. 'curl (of hair)', found in Ta. Ma. Ka. Tu. Te.; and possibly the items with zero in 664 **uruḷ-*, **uruṭṭ-* 'to roll, revolve, be round', found in SDr. (including Tu. and To. *u·ḷ-*<**uruḷ-*, etc.) and Te. (Kur. *oḷ°ṇḍārnā* should probably not be included in 664.)

2778 **cer-* (with suffixes *-uk-*, *-ukk-*, *-ut-*, etc.) 'to insert, thrust in, tuck in (end of garment)': **c-* in Ta. Ka. Te. Go.; **c-* and *t-* in Ma. (*cerutu* 'to shove in', *terukku-* 'to tuck in [waistcloth]'); **k-* in Kur. *xerr-*, Malt. *qer-*

(also, not in *DEDR*, from Hahn, *kherr-* 'to pocket, put by'; note Kur. *x*, *kh*, Malt. *q*, instead of *k*-); To. *teg-* 'to fasten loin-cloth' is ambiguous as to **c-* or *t-* (cf. Ma.).

2426 **cā-* (past **catt-*/**cett-*) 'to die': **c-* in all languages except NDr.; **k-* in NDr., Kur. (*khē'e-nā*, past *kecc-*; dialect in *Linguistic Survey of India* *xē-*), Malt. (*key-*, past *kec-*), Br. *kah-* (past *kas-k-*) (note Kur. *kh*, *x*, and *k*). The irregular morphology in NDr. (Kur. *khē-* = **cā*/*ē-*; past stem in all three languages containing the past suffix **-c-*, i.e. **cec-* or **cecc-*) is matched by the equally irregular Te. *cā-*, *caccu*. The vowel alternation (**ă*/*ĕ*) is notable.

1955 Ta. Ma. *ceppu-* 'to say, speak, tell', Te. *ceppu* 'to say, tell, narrate, reprove, scold', Kur. *keb-* (past *kepp-*) 'to scold, abuse'. It has been assumed (Krishnamurti 1961, p. 362, no. 465; *DEDR* 1955) that the reconstruction is **kep*(*p*)-, with normal palatalization of **k-* before the front vowel in Ta. Ma. and Te. This, however, neglects that for **k-* Kur. should have *x-* before *e*. Its *k-* is what is expected from **c-* before *e*, and the reconstruction should be **cep*(*p*)-, with shift in *DEDR* to the **c-* section.[25]

2814 **cēr-* 'to reach, arrive, go into, go; proximity, near': **c-* in all SDr. and CDr. (To. only *s-*, forms borrowed from neighbouring languages); Koḍ. *s-* (borrowed from Ka.) and *k-* (*kë·r-*, *ke·t-*); *k-* (not *x-*) in Kur. (*ker-*, past stem of *kā-* 'to go') and Br. *kēb* 'nearness, near'. It has been stated that **cēr-* and 2460 **cār-* 'to reach, go near' (see §23) are of the same origin (with alternation *ā*/*ē*); so Subrahmanyam 1983, p. 388, and *DEDR* (with probably unjustified query).

2591 **ceṟ-* (with suffixes -V*kk-*, -V*ṅk-*, etc.) 'wing, feather': **c-* and zero in Ta. (*c*)*iṟai*, (*c*)*iṟaku*, *iṟakkai*, Ma. (*c*)*iṟaku*; zero in Ka. *eṟa*(*ṅ*)*ke*, *ṟakke*, *ṟekke*, Tu. *ediṅke*, *reṅkè*, Te. *eṟaka*, *ṟekka*, *rekka*, Go. *rekka*, Konḍa *ṟeka*, Kuwi *rekka*, (Koḍ. *rekke*<Ka.; Go.- Konḍa-Kuwi, as well as some Kol.-Pa. forms<Te.); 3424 *t-* in Koḍ. *terake* 'wing', To. *tergy* id. (? borrowed, since it has *r* rather than *ṟ*); 1983 *k-* in Ko. *ker*(ŋ)*gl* 'feather, wing' Tu. *keḍuṅke*, *kedaṅkè* 'tip of wing', *kedi* 'feather' (**ṟ*>*ḏ*), Go. *gerŋ*(*g*), *girru* id., Konḍa *gurgil*(*i*) id. (*DEDR* compares the three groups; Subrahmanyam 1983, p. 330, no. 1025, compares **c-* and **t-*.)

2444 **cā*/*ēṇ* 'span (measure)': **c-* in Ta. Ma. *cāṇ*, Koḍ. *ca·ṇï*, Te. *jēna*, (Kol. *ze·na*<Te.); **k-* in To. *kï·ṇ* (vowel?), Ko. *ga·ṇ*, Ka. *gēṇ*, *gēṇa*, *gēṇu*, Tu. *gēṇu*, *gēṇa* (probably<Ka.).

2775 **ce*/*ampu* 'copper; small globular metal vessel with spout for drinking water': **c-* in Ta. Ma. *cempu* id., Ka. *cambu*, *cembu* id., Koḍ. *cembï* id., Te. *cembu* 'goblet'; *k-* in Ko. *keby*, *keb-giṇḏy* 'drinking vessel' (as above), To. *köb* 'small brass vessel' (the vessel is for both communities a borrowed culture article, but *k-* is not found elsewhere); *t-* in Ta. *tampikai*, Ka. *tambige* (also *cambige*), *tambuge*, Tu. *tambigè*, Te. *tambuga* (these all denote the same culture article and are obviously from one source; they look IA, as if<Skt. *tāmrika-*, Pali **tambika-*, Pkt. *tambiya-*, but Ka. *tambige*, *cambige*, with both *c-* and *t-*, seem against this, and there may be merely contamination).

To. *teb, töb* 'copper' is in all probability a borrowing from [*cembu*] of a neighbouring language.

1514 **ciccu* 'fire'>**ticcu, *tittu, *kiccu*: **c-* in Te. *ciccu,* Koṇḍa *sisu,* Kuwi (Israel) *hicu,* Kur. *cicc,* Malt. *cicu*; **t-*, **ticcu* in Ko. *tic,* Beṭṭa Kuruba *ticcï*, **tittu* in To. *tït,* Koḍ. *titti*; **k-* in Ka. *kiccu,* Tu. *kiccu, kicci, kicce,* Kol. *kis,* Pa. *kic,* Ga. *kiccu,* Go. *kis* (Ta. *kiccu* is probably<Ka.). **tittu* probably has *-tt-* by assimilation to the initial *t-*. Burrow (1943, p. 130) without all the data now in the record, but on the basis of the NDr. forms with **c-* (and also Koḍ. *titti*), found that **k-* cannot be original and that "Ka. *kiccu* and Go. *kis* . . . must have developed out of *ciccu* through dissimilation"; he took Te. *kittu* to be a borrowing, presumably from Ka. *kiccu* (see end of this subparagraph). Subrahmanyam (1983, p. 77, note 3) seems to posit both **k-* and **c-* as original, and suggests that the forms with *t-* are due to contamination with 3266 **tī* 'fire' of Ta. (i.e. old Ta.) Ma. Irula. Pfeiffer (1972, p. 27, no. 122) reconstructs **cicc-*, without any discussion; Zvelebil (1970, p. 118, §1.26.1.2) says: "**cicc->*kicc-*" (by dissimilation—following Burrow). In *DED* and *DEDR* the group has been placed in the *k-* section, essentially because of the first item, Ta. *kiccu*, and the wide spread of *k-* in other languages, and without any suggestion of how the reconstruction and development are to be stated; the group should be shifted to the *c-* section. Te. *kittu* 'fire' (see above) and Tu. *kìttṵ* 'lightning' have unexplained *-tt-*; it may be possible that **-cc->-tt-* is parallel to the sporadic instances of **-c->-t-*, which have not yet been fully investigated but to which attention has been called, e.g., by Krishnamurti 1961, pp. 38f., §1.88 (some of his examples will certainly stand). It may be noted that the regular words for 'fire' are in colloquial Ta. *neruppu* (*DEDR* 2929), in Ma. *tī* (3266), in Pe. *nāṇi*, Kui *nāṇi, nāṛi* (3640), in Br. *xāxar* (1458).

29. The most uncertain instances are the following:

2587 Ma. (various dialects) *cilli, illi*, Ko. *cil*, Ka. *ciḷḷe*, Te. *ciḷla, ciḷlu*, Pa. *cella, jella*: Ka. (dialectal) *gellu*, Tu. *gellṵ*. The meanings: 'branch, twig, fork of two branches'; the last meaning is associated with forms with *-ḷḷ-* (Ka. and Te.), and it would be possible to divide the group on this basis (Ko. *cil kav* 'pole with a fork at one end' is probably 'branch [*cil*] fork [*kav*]' with 1325 *kav*). If the division were justified, the forms with *-ll-*, with meaning 'branch, twig', would provide an instance of **c-* replaced by **k-* (*g-*)—but there would still be a problem about the vowels.

1814 **kūl-* 'to fester' in Koṇḍa and Pe., *kulh-* id. in Kuwi (Schulze), Go. *kulum* 'pus': Pa. *culj-* '(pus) to form', Ga. *suluskur* 'pus'. Tempting as it would be to reconstruct **cūl-*, **cul-* for this group, the somewhat wider distribution of *k-* forms makes it uncertain, and warrants the placing in *DEDR* and use of a query.

2550 Ta. *ciraṭṭai*, Ma. *ciraṭṭa, ciraṭṭi*, Koḍ. *ceraṭe*: Ka. *geraṭe*, Koraga *geyṭe*. The meaning: 'coconut shell', in Ta. Ma. especially half of a shell. The placing in *DEDR* in the *c-* section makes this an instance of **c-* replaced by

*k- (g-) in Ka. and Koraga. If the reconstruction were with *k-, then Koḍ. *ceraṭe* would have to be considered a borrowing, presumably from Ma.

2019 *k/cēr̲- 'to winnow', *k/cēr̲r̲- 'winnowing basket/fan': *k- unambiguously in Ko. (*ke·r-*), To. (*kö·r̲-*) Ka. (*kēr̲u*) Kol. (*ke·d-*, *ke·t*) Nk. (Ch.) Pa. (*kēd-/kēḍ-*, *kēti/kēṭi*) Ga. (*kēy-*, *kēṭi*); *c- unambiguously in Go. (*hēc-*, *ēc-*; *sēti*, *hēti*, *ēt(i)*) Konḍa (*sēRi*) Pe. (*jēc-* [remove from *DEDR* 915], *hēci*) Manḍ. (*hēci*) Kui (*sēsi*) Kuwi (*hēci*): *c-* ambiguously in Ma. (*cēr̲uka*) Te. (*cerugu*, *cēṭa*). NDr.: Kur. (*kĕ̈s-*, *kĕ̈ᵉr*), Malt. (*kés-*, *kétnu*); *k-* before *ē* points to *c- rather than *k-, which should be represented by *x-/q-*; NDr. joins CDr. (Gondi-Kuwi) in looking towards PDr. *c-. The *k-* replacement has taken place in SDr. (though not necessarily in Ma.; Ta. has only a form *cēṭṭai* 'winnowing fan' borrowed from Te., its general word being 5005 *muṟam*, and the general verb being 4252 *puṭai*), in Kol.-Ga., and NDr. To reconstruct PDr. with *k-, besides ignoring the NDr. anomaly, requires the hypothesis that Gondi-Kuwi have borrowed from Telugu; the details of the Gondi-Kuwi forms, especially of the verb, are not easily explained on this view.[26] The suggested connection with 915 *ekar̲, *ēr̲- only seems possible if 915 is further reconstructed as *cekar̲-, *cēr̲-; but the need then to posit replacement of *c- by zero in CDr., including Te. *ēr̲u*, seems to rule out the hypothesis. On the other hand, recognition of sporadic replacement of *c- by *t-*, along with alternation of *ā* and *ē* after *c-, allows connection (hitherto unrecognized) with 2019 of 3195 Tu. *sāruni*, *sāriyuni* 'to sift' (in all probability brahmin forms with *c->s-), and Ta. *tār̲r̲-*, (colloquial *tātt-*), *tar̲i-* 'to winnow, sift'; Br. *dranzing*, *drăzing* 'to throw up in the air, winnow' may belong here (Emeneau 1971, p. 193, fn. 12, and now *DEDR* 3195); with *l*∼*r̲* (still in need of examination, but cf. 905 and 916 *ēl-∼*ēr̲-*, 1297 *kal-∼*kar̲-*, 1481 *kāl*∼*kār̲r̲-*, etc.), Te. *tāl(u)cu* 'to sift in a winnowing basket', Pe. *dalŋgi ki-* 'to winnow'. Previously (e.g., Krishnamurti 1961, p. 361, no. 468, without the Gondi-Kuwi forms; Subrahmanyam 1983, p. 161, no. 604, without the Gondi-Kuwi forms, and p. 297, no. 941, with the Gondi-Kuwi forms but without discussion; *DEDR* 2019), the group has been reconstructed, explicitly or tacitly, with *k-. If the present hypothesis is not accepted, it is necessary to set up two groups with *k- and *c- already in PDr. (as is done for this and some of the other Kuṛux, and consequently NDr., forms, by Pfeiffer 1972, p. 65, no. 407, p. 66, no. 409, etc.). It should be noted that the meaning 'to winnow' is ambiguous and covers two (or even more) operations on grain; greater semantic exactitude is a desideratum.

1606 The words meaning 'to rot', n. 'pus, snot, earwax' present so many difficulties of detail that, though initial *k- has usually been reconstructed (e.g., Zvelebil 1970, p. 116, no. 138, Subrahmanyam 1983, p. 295, no. 935), a decision as to reconstructing *k- or *c- seems almost impossible; Burrow 1976, p. 41, thought that there may be two bases, having abandoned his former view (1943, p. 129) that *k- was original, which required that the Kui and Kuwi forms for 'pus' with *s-* were borrowed from Te. *cīmiḍi* 'snot' (the

meaning difference is not insuperable; since it is possible that all the nouns have both meanings, as in Ta. and Br.). Some reconstructions that are basic: **k/civ-*, **k/cī-*. **c-* unambiguously in Manḍ. *hīven* 'pus', Kui *sīvenḍi, sīvenji* id., *srīva* 'to rot', Kuwi *sīvesi, sīmesi* 'pus', *srī-, sir-* 'to rot'; **k-* unambiguously in Ko. *kiv* 'pus', *kit-* 'to rot', *giṇ* 'snot', To. *kïtil* 'rotten', Koḍ. *ki·y-* 'to rot', Ka. *kī* 'to putrefy', *kīvu, kīmu* 'pus', Tu. *kīvu* id. The NDr. forms, Kur. *kitt-* 'to rot', Malt. *kit-* id., *kitro* 'rotten', Br. *kīsh* 'pus, snot', are *prima facie* unambiguously **k-* forms; however, as soon as it is realized that there is unambiguous evidence elsewhere for **c-*, these NDr. forms become ambiguous as to **k-* or **c-*. Such forms as Ta. *cī* 'pus, snot', Ma. *cī* 'putrid matter', *cī-* (past *cīnnu*) 'to rot', *cīkku* 'rotten', *cīccal, cīyal* 'rottenness', Te. *civulu, cīku, cimuku* 'to rot', *cīmu* 'pus', *cīmiḍi* 'snot', are taken (Zvelebil loc. cit., Subrahmanyam loc cit.) as showing the normal palatalization **k->c-*, though Burrow (loc cit.), upon realizing that there is evidence in the whole group for both **k-* and **c-*, had to find that the Ta.-Ma. and Te. evidence is ambiguous. However, this is to omit from consideration Ta. *cīṟ* 'pus' and (from *Tamil Lexicon*) *cīṟ-kkātu* 'purulent discharge from the ear' and *cīṟ- kaṭṭu* 'to suppurate' (all commonly used in modern 'bookish' Tamil); if *cīṟ* is good evidence, it must represent **cīṟ* and not a form with palatalization of **k-* (since in the complete statement of the palatalization rule, in Ta.-Ma. **k-* does not palatalize when the following front vowel is followed by a retroflex consonant). Is it possible even that Te. *cīḍa* 'any disease of animals or plants, rot, blight' is<**cīṟay*? It might be possible, then, to take **cī-*, etc., to be the proper reconstruction for Ta. Ma. Te. Manḍ. Kui Kuwi and NDr., and to find *k-* in the remainder of SDr., including Tu., as secondary. Such forms as Koḍ. *cela* 'pus' (? connected with Ma. *cīyal*), the Kui-Kuwi verbs with *-r-* (Kuwi *sir-, srī-*, Kui *srī-*),[27] and Br. *kīsh* remain puzzles in one detail or another . To. *i·ṇm* 'snot', if it belongs here, has *ṇ* which is seen in Ko. *giṇ* id. and Ka. *kiṇi* 'impurity of the teeth'; *ṇ* may be an alternant of *ṟ* (Ta. *cīṟ* 'pus'), for which alternation in some instances in Ka. see Krishnamurti (1958, pp. 262-63); the To. item can be put here only by positing sporadic zeroing of **c-* (but this seems preferable to inclusion with 551 **iḷay* 'phlegm, spittle'). Some forms, such as Kol. *sivk-* 'to rot', *si·m* 'pus', *c/sīmuḍ* 'snot', are clearly borrowed from Te. (so Subrahmanyam 1983, p. 298 med. with reference to p. 295, no. 935).

Two suggestions are so uncertain that any discussion of them would add nothing of value to the consideration of the matter.

2807 Ta. *cēṇ, cēy* 'distance', Ma. *cēṇ* 'breadth', Go. *jēk* 'distant', Kui *seko* id., Kuwi *heko* 'distance'; the query for Kur. *gecchā* 'distant', Malt. *gece, geci* 'far' is justified, since there is so much difficulty of detail.

2367 Ka. *cala/ime, calume, cilume* 'hole dug for water in dry bed of river', Te. *celama* id., Kuwi *salma* 'well'. Connection with these of Br. *kal* 'place where water collects' is phonologically difficult; Indo-Aryan origin of *kal* is possible (Emeneau 1961, pp. 377-78), and this item is to be omitted here.

APPENDIX I: *c- IN TULU

This problem has received treatment, especially by L. V. Ramaswami Aiyar (1931-32, 1933, and 1936) and D. N. Shankara Bhat (1966), but the final word cannot be said until we have the very searching dialect study that has been promised by the Tulu Lexicon Project (ed. U. P. Upadhyaya; see *DEDR*, pp. xix-xx). This dialect work is in the highest degree necessary since numerous dialects must be distinguished and the distinguishing marks are conspicuous. Our major lexical sources so far, the great dictionary by Männer (1886) and the important supplementary work by M. Mariappa Bhat and A. Shanker Kedilaya (1967), list many dialect equivalents for the same item—but without making the dialect identifications. Meanwhile, Shankara Bhat's work makes it possible to state the outlines of the problem and to realize why lack of dialect attributions makes it impossible in most instances to use Tulu material in the present enquiry into PDr. **c-* and its developments.

It has been demonstrated that all brahmin dialects keep initial **c-* and **t-* apart as *s-* and *t-* respectively, while all other dialects merge these two PDr. phonemes in this position, showing (so far) five different dialectal developments, as is seen in the table.

Tulu	PDr. *c-	PDr. *t-
all brahmin dialects	s-	t-
non-brahmin dialects	*c- and *t- coalesce	
north coastal area (Udupi, Mangalore)	t-	
Sapaliga of Udupi; 'folk-dialect of Baṇṭs'		
south coastal area		
Holeya	c-	
↓		
Setti (Kasaragod)	s-	
↓		
Jain[1]—north, Karkal ('Jains and others, eastern and south-eastern taluks')	h-	
↓		
Jain[2]—south, Puttur	∅	

The five non-brahmin dialects distinguished by area and community in the table do not by any means exhaust all the dialects, as is illustrated by Shankara Bhat's statement (p. 18, §2.8). It is known also that there is much dialect mixture, e.g., *t-* of the northern coastal dialects appears often in Jain[1]. Many *s*-forms (<**c-*) from Kannaḍa are found in (apparently) all dialects. Many forms derived from Sanskrit have *s-* (or *c-*?) in (apparently) all dialects.

Shankara Bhat (p. 18, §2.6) would "posit a phoneme *t for Proto-non-Brahmin's Tulu, to represent the two phonemes *c and *t after merger." To posit this phoneme would seem to be premature. What has emerged clearly in the general investigation of this paper is that in Dravidian in general *c- shows sporadically a development to *t-*, and much more occasionally *t- shows development to *c-*, and on the other hand, in Gondi and other CDr. languages, *c->s->h->∅. The Tulu non-brahmin developments as shown in the table could well be unified by statements: (1) coalescence of *c- and *t- to *c- in non-brahmin dialects, (2) *c->t- in the north coastal area, (3) in all other areas and communities c->s->h->∅ (as is indicated by arrows in the table). But this statement too is premature, until much more dialectal material is in the record and the dialects are plotted accurately on the map; it might be that there were historically two separate coalescences, *c- →t- in one dialect or set of dialects, *t-→c- in another.

Shankara Bhat's treatment gives a comparative word list of 77 items (pp. 19-22), with indication of PDr. origin (*c- or *t-) for most of the items. Unfortunately, brahmin forms are not given in the list, and for some items it is imperative that we know the brahmin form as such, in order to achieve comparative treatment. In the present enquiry on PDr. *c- and its relations with dental stops it has been necessary to omit Tulu evidence, either silently or explicitly, as being usually ambiguous and valueless on the point at issue.

One example will illustrate the difficulty. On p. 22 Shankara Bhat gives two forms with meaning 'small stream', *ha:r ĩ* and *a:r ĩ*, from the two Jain dialects included in his statement; he attempts no reconstruction. The 1967 dictionary gives these two forms and also *tāṛu* and *sāṛu*, but with no dialect attributions; their meaning is 'river, stream'. *DEDR* included these four forms in 5159 (Ta. *yāṟu*, *āṟu*, many other languages **ēṟu*), as if Tulu gave evidence for a reconstruction **cā/ēṟu*. This tacit conclusion about Tulu as giving evidence for *c- is only warranted if it turns out that *sāṛu* is the brahmin dialect form (if indeed this is from a brahmin dialect rather than some other). Even so, the inclusion in 5159 is certainly wrong; to posit a reconstructed initial *c- for this etymological group is most improbable, since the CDr. languages give no evidence, as they should in that case, for *c- in this word. No certain etymology is at hand for the Tulu words. A somewhat more specific meaning has been furnished by my colleague, Professor Padmanabh S. Jaini, viz., 'small stream coming down a slope and guided so as to irrigate a succession of paddy fields'. This looks in the direction of several groups of etyma that include meanings 'slope' and 'to flow down a slope': 2360 **car-* and 2482 **cāṟ-*; 3178 **tāṟ-*.[28] The meanings are less close for the latter, and yet not impossible. 2360 and 2482 are certainly to be related with one another (as is done in *DEDR*) in spite of the phonological difficulty of *r and *ṟ; the latter contains Tulu items with *r*, which is unexpected rather than *d* (or *j*), and yet not without parallel. The Tulu forms for the stream, with *t-* and *s-*, cannot help towards a decision between PDr. *t- and *c- until we know the brahmin

form (if there is one), and in the present state of Tulu dialectology we are left with very uncertain etymological relationship for this Tulu word.

APPENDIX II: *c- IN GONDI

For PDr. *c- Gondi has in the northern and western dialects *s-*, in the south and east *h-*, and in the farthest SE dialects, viz., Hill Maṛia and Koya, zero.[29] When sporadic occurrences of these developments are found outside the dialect limits thus defined, these are probably explicable as the result of uneven spread of the successive changes through the lexicon. Such is probably the explanation of the retention of the palatal affricate in a small number of items in one dialect, as set forth in the following paragraphs.

It is in the record, though it has not been noted explicitly in general terms, nor has it been discussed and evaluated, either in *Voc.* or by Subrahmanyam (1968 and 1983) or by Zvelebil (1970) that in one area the palatal affricate occurs. The area involved is the contiguous Yeotmal and Adilabad districts, which are in the center of the NW to SE line that is the southern boundary of the Gondi area (as shown in *Voc.*, map between pp. 80 and 81); it is a subarea of that identified by the phrase 'the northern and western dialects'. In *Voc.* 'Gondi of Adilabad' is drawn from Burrow and Bhattacharya's fieldnotes of 1951 (sigillum A.), from P. Setumadhava Rao's grammar of 1954 (sig. SR.), and from C. von Fürer-Haimendorf's anthropological account of the Raj Gonds of Adilabad of 1948 (sig. FH.; very few items, none relevant to this point); Subrahmanyam (1968a: sig. ASu.; not in *Voc.*) describes Adilabad Gondi (as well as Koya, sig. KoyaSu.). 'Gondi of Yeotmal' is drawn by *Voc.* from Burrow and Bhattacharya's fieldnotes of 1957 (sig. Y.); it also records a few items (none relevant here) from a vocabulary published by Haig in 1897. It is impossible with the material in the record, sparse as it is for Yeotmal, to be sure whether one or two (or even more) dialects are involved. This is for the moment of little importance, since if there are two dialects, they must, in this feature at least, be closely related, and the material can be treated as if unified. In fact, still unpublished material shows that only one dialect is involved here (G. Umamaheshvara Rao kindly informs me of this from his field material).

The Adilabad-Yeotmal data, then, contain a small number of items which have initial *c-* contrasting with *s-*, *h-* and zero in the corresponding items in other dialects. The items follow; it is to be noted that no conditioning can be identified, since all vowels follow *c-* in the material, and the consonants following *c*V-, though only several in number, are very unlike one another (*h*, *c*, *m*) and one of them (*h*) is of several historical origins.

(A. ASu. Y.) *cahkī̆*, (other dialects) *sahkī̆*, *hahki*, *ahki*, *ahk* 'mortar (for pounding grain)' (*Voc.* 3363; *DEDR* 2391, where the meaning is wrongly indicated by id., i.e. 'pestle').

(SR.) *cāh-* 'to stretch' (tr./caus.), (other dialects) *sāh-* id., *sāng-* (intr.), *hāh-*, *āh-*, *āŋg-* (*Voc.* 3365; *DEDR* 2433).

(SR.) *cice*, (ASu.) *cīce* 'fruit just formed after blossom falls' (*Voc.* 1307; *DEDR* 2609; otherwise found only in Kuṛux *cicī*, *cicō* id., but probably a good Dravidian etymology, since nothing similar is recorded in *CDIAL*).

(ASu.) *cuhk-*, (other dialects) *suhk-*, *u?k-* 'to suck, smack' (*Voc.* 3449; *DEDR* 2621b, without ASu.).

(SR.) *cumār*, (ASu.) *cummār*, (other dialects) *summār*, *hummar*, *umar* 'head-pad for carrying loads' (*Voc.* 3442; *DEDR* 2677, without ASu.).

(A. ASu. Y.) *coh-*, (other dialects) *sōh-*, *hoh-*, *oh-* 'to itch', (ASu.) *cohk-* id. (plural action) (*Voc.* 3499; *DEDR* 2865).

(ASu.) *ceh-* '(women) to sing songs showing mirror to each other (during marriage)', (Tr. Ph.) *sēhtānā* 'to joke', (W.) *sehtānā* 'to dance' (*Voc.* 3488, without ASu.). This is not in *DEDR*, since no Dravidian etyma have been found. This item cannot be used in the final argument, but if it is of Dravidian origin, it is of the same nature as the others in this list.

One item has *c-* in several recordings from Adilabad-Yeotmal and *s-*, *h-* and zero in other dialects; however, the Adilabad dialect also has *s-* (so alternatively in SR., and only so in ASu., the most trustworthy recording). It is the entry with the meaning 'thorn' (*Voc.* 3369; *DEDR* 2468, without the relevant dialectal forms): (SR.) *cāp*, *sāp*, (ASu.) *sāp* (pl. *-k*), (Y.) *cāhā* (pl. *-k*), (Tr.) *sāp* (pl. *sāhāk*), (other dialects) *hāp* (pl. *hāhk*), *āp* (pl. *ā?ku*).

In most groups of etyma with initial **c-*, when the Adilabad-Yeotmal dialect is included in entries for Gondi, it has initial *s-*, like the other northern and western dialects; e.g., (A.) *say-*, (ASu.) *sā-* 'to die' corresponds to *sā(y)-*, *hā-* of the other dialects (*Voc.* 3335, *DEDR* 2426);[30] (A. ASu.) *sī-* 'to give' corresponds to *sī-*, *hī-*, *ī-* of the other dialects (*Voc.* 3418, *DEDR* 2598); (A. Y.) *sūṛ-* 'to see' corresponds to *sūṛ/r-*, *hūṛ-/r-*, *ūṛ-* of the other dialects (*Voc.* 3462, *DEDR* 2735).

In a number of groups of etyma *c-* is found in many or most of the other Gondi dialects, with or without occurrence of the etyma (with *c-*) in the Adilabad-Yeotmal dialect. These groups are irrelevant in this connection. Several items are expressives or the like, in which 'regular' developments may be expected to fail to occur:

(*Voc.* 1273, *DEDR* 2280) Gondi (Sironcha Raj Gond) *cakk-* 'to dazzle', Telugu *jaggu* 'shining, brilliancy', Parji *jagjaga* 'clean (of clothes), bright' (these, minus the Gondi item, have been treated in Emeneau 1969, no. 13, in connection with IA forms **jagajaga-*, **jakkajakka-*, **jhagajhaga-*, **jhakkajhakka-*).

(*Voc.* 1289, *DEDR* 2352) Gondi (Muria) *carkne* 'immediately', Tamil *carakka* 'quickly', Kannaḍa *sarakkane* 'swiftly', Telugu *saraga* 'quickly, soon' (Emeneau 1969, no. 17, for Kannaḍa *sarasarane* 'quickly' and IA parallels).

(*Voc.* 1311, *DEDR* 2511) Gondi (Chanda) *ciṭkuli*, (Muria) *ciṭkul*, (Hill Maṛia) *ciṭkan* 'snapping of fingers'. This whole entry in *DEDR* (Telugu *ciṭika*,

etc.) seems to be closely related to *DEDR* 2509, treated in Emeneau 1969, no. 19, and is expressive in nature.

(*Voc.* 1337, *DEDR* 2636) Gondi (northern dialects) *cīvă*, *cīvāl*, *civnã̆* 'young of birds, chick'. The etyma given for Konḍa, Kui, Kuwi, Kuṛux, Malto have the initials to be expected (Kuṛux-Malto *c*-, Konḍa and Kui *s*-, Kuwi *h*-), even though the formation of the words in the various languages presents difficulties. Is it possible that the initial *c*- in Gondi is the continuant of or is contaminated with such expressive forms as are entered in *DEDR* 2581 for 'twittering of young birds', Kota *civk*, *civk civk* (also *cik cik* 'chirping of birds'), Kannaḍa *civu civu*? Note also Sanskrit *cīcīkŭcī-* 'warbling of birds' (Monier-Williams with epic references).

Borrowings in Gondi from the neighbouring languages, either Telugu or Indo-Aryan (especially Marathi, but also Hindi and Oriya), often show initial *c*- through the whole range of Gondi dialects. Occasionally, there is seen development to *s*-, *h*-, zero in dialects where these developments are to be expected, but these developments occur only sporadically; when they occur with any regularity, it may be surmised that the borrowing took place early. A few examples only are given.

Borrowing from Telugu is to be seen in the following:

(*Voc.* 1299, *DEDR* 2452) (G. [Chanda]) *cāpi*, (Muria) *cāp*, (Koya) *cāpa*, (Hill Maṛia) *sāpi*, (Y.) *cāpre*, (ASu.) *cāprā* 'mat': Telugu *cã̆pa*, (modern) *cāpa* id. (Note that Kuwi, which regularly has **c*-$>$*h*-, also borrows this word from Telugu: recorded by Schulze as *cāpe*, by Burrow and Bhattacharya *sāpe*, and by Israel *sāpa*.)

(*Voc.* 1303, *DEDR* 2496) (Hill Maṛia, Koya) *cikuṛ* 'a kind of beans': Telugu *cikkuḍu* 'the bean Dolichos lablab'.

(*Voc.* 1358, *DEDR* 2766) (Y.) *cenḍu* 'ball'. This is the only Gondi form on record; it is undoubtedly a borrowing from Telugu *ceṇḍu*, or from Marathi *cẽḍũ*, which is itself a borrowing from Dravidian, possibly Kannaḍa.

(*Voc.* 1363, *DEDR* 1977*c*) (Adilabad SR.) *cevḍa*, (Koya) *cevṭa*, (Hill Maṛia) *evḍa* 'deaf', (ASu.) *cevṭāl*, (Koya) *cevṭal*, (Hill Maṛia) *evḍal* 'deaf man': Telugu *cevuḍu* 'deafness', *ceviṭi* 'deaf'. This item is not strictly relevant, since PDr. has **k*-; but it shows borrowing from Telugu *c*-, and the sporadic results *c*- and zero.

Borrowing from Indo-Aryan is clearly or probably seen in the following (cf. also *DEDR* App. nos. 37 and 39):

(*Voc.* 1338, *DEDR* App. no. 38) (Y.) *cua* 'well in sand', (Chanda) *cua*, (Muria) *cua*, *suva*, (Hill Maṛia) *suvā*, *cuvā* 'well'. Cf. *CDIAL* 4947 *cyōtā-*, to which add Hindi *coʔā(n)*, *cuʔān* 'small pit into which water drains, cistern', *cohā* 'small well', *coyā* 'well in a dried river bed' (as in *DEDR*).

(*Voc.* 1346, *DEDR* 2655) (Y., the northern dialect [Tr. W. Ph.], Chanda) *cuṭṭī̆* 'hair': *CDIAL* 4883.3 Hindi *cuṭiyā*, Oriya *cuṭi* 'topknot'. Forms with *j*- are to be expected (for whatever reason; see especially Kannaḍa and Telugu

juṭṭu) and are found in (ASu.) *juṭṭī* 'tuft of hair' (sig. ASu. rather than Su. as in *DEDR*) and (*Voc.* 1434, Sironcha Raj Gond) *juṭṭi* id.

(*Voc.* 1325, *DEDR* 2625) (northern dialect [W. Ph.]) *cirnī* 'comb for removing nits'. This has been listed in the *DEDR* entry for **cīr* 'nit', in spite of the short vowel in the first syllable. The *Voc.* entry compares it with Kannaḍa *sīraṇige* id., but this latter is a compound with *aṇige* 'comb' (<IA, *DEDR* App. no. 49). *Voc.* also compares *cirṅī* with Bengali *ciruṇī* 'comb', and it is to be surmised that Hindi or Marathi has an etymon for this, which Gondi borrowed.

(*Voc.* 1347) words for 'small, little, young(er)', **cuḍ(ḍ)-*. This group, which has *c-* in most of the dialects, is probably a borrowing from a **chuḍḍa-* derivative in the Marathi territory from Sanskrit *kṣudra-*; detailed treatment of the problem is undertaken elsewhere.

It should be noted that though in several of these groups there are found the dialectal developments of *c-* that are expected in items of Dravidian origin, occurrences of *s-* are sometimes lacking in the developmental chain. *s-* occurs in *Voc.* 1299 (<Telugu; *cāp-* 'mat', Hill Maṛia *sāpi*) and *Voc.* 1338 (<IA; *cu(v)a* 'a well', Muria and Hill Maṛia both *cu(v)ă̈* and *suvă̈*). On the other hand, *s-* is lacking in *Voc.* 1363, which has *c-* forms, but also zero forms in the Hill Maṛia dialect (<Telugu; *cevḍa*, *evḍa* 'deaf'); *Voc.* 1347, words for 'small, etc.' have *c-* in most dialects (including Koya), *h-* in the Chanda and Muria dialects, and zero in Hill Maṛia (probably<IA; *cuḍ(ḍ)-*, *huḍ(i)la*, *uḍila*). Whether the absence of forms in *s-* in these last items is significant, or whether it is accidental (e.g., an accident of recording, though this seems unlikely in the last item), is still uncertain.

Munda influence may be invoked in the case of one item. The squirrel words (*Voc.* 1314, *DEDR* 2518) in Kolami-Naikṛi, Kuṛux, and Gondi have congeners in Kharia and Santali (Pinnow 1959, p. 157, no. 325): Kolami *siḍḍe*, Naikṛi *śiḍḍe*, Kuṛux *ciṛrā*, *ciḍrā*, Gondi (northern dialect [W. Ph.]) *ciḍrāl*, (Muria) *ciḍral*; Kharia *ciṛ'ṛa*, *ciḍ'ṛa* 'squirrel', Santali *ciḍri?j ciḍri?j* 'call of the striped squirrel'. Pinnow's Austroasiatic etyma present phonological difficulties, and he is dubious about connection between these and the Munda items. However, *DEDR* notes the Dravidian-Munda similarity, and in *JAOS* 82:109 I thought of Dravidian as the source of the Munda words. If now the unexplained Gondi *c-* is to be given weight, it looks as if it would be justifiable to find Munda to be the source and the Gondi *c-* to be the unchanged result of borrowing. In the present state of both Dravidian and Munda studies, there is little certainty about borrowings between the two families, and certainly nothing more has been found so far that is relevant to the problem of *c-* in Gondi and that yields firm results. An examination of a large group of rodent names (undertaken elsewhere) is instructive, both as to the difficulties of the enquiry and the lack of firm results.

It might be suggested that *c-* in the Adilabad-Yeotmal dialect in those items which were listed at the beginning of this Appendix is due to the influ-

ence of neighboring languages which have *c-*. Of these languages Telugu would seem the most probable. Unfortunately the etymological groups with which we are concerned contain no Telugu etyma which are at all similar, except for *DEDR* 2677, in which Telugu *cumma* 'head-pad' is found. Since the Telugu pronunciation here is either [ts-] (standard, upper class) or [s-] (lower class), Telugu influence would seem to be ruled out in this word.[31] The Kinwaṭ dialect of Kolami (spoken in Yeotmal territory) has *c-* for the normal Kolami *s-*. The only relevant item in the record is in *DEDR* 2391, Kolami *cavli* 'mortar' (cf. the Naikṛi dialect of Kolami *savli*), which is so unlike the Gondi *cahkī, sahkī*, etc. that we can rule out any influence from Kinwaṭ Kolami in this word. In *DEDR* 2677 no Kolami word for 'head-pad' is recorded, except for the Naikṛi dialect, whose *cumma* (*c* = *ts*) must be a straightforward borrowing from Telugu.

What then is to be our conclusion about the occurrence of *c-* in the Adilabad-Yeotmal dialect, which in general shows for PDr. **c-* the same *s-* that is seen in the other northern and western dialects? Since no influence can be proven from neighboring languages for the items in question, it seems highly probable that the items show the direct continuant of PDr. **c-*, viz., the affricate *c-*, that this is the original Gondi continuant preserved only in these items in this dialect, and that in this dialect the change *c-*>*s-*, which in the other northern and western dialects has affected the whole Dravidian lexicon, has affected most of the lexicon but has failed to reach these items. Gondi, then, as well as Telugu, has evidence, slight as it is, for the affricate nature of **c-* in Central Dravidian.

APPENDIX III: SPORADIC REPLACEMENT OF **t-* BY **c-*

It has been noted by several scholars (Ramaswami Aiyar 1933, pp. 149-52; Krishnamurti 1961, p. 12, §1.23; Zvelebil 1970, p. 91) that there are sporadic instances of **t-*>**c-*. The matter has not, however, been treated in any detail, and it will be profitable to collect all instances that appear in *DEDR*. No phonological explanation is attempted. What is now needed is a sorting out of data, since at times it is impossible to be sure whether there should be reconstruction of **t-* or of **c-*.

It should be stated first that Pengo has a 'regular' assimilatory replacement of **t-* by *c-* or *j-* in roots or forms which end in a palatal, either by inheritance from PDr. or by development, although "dialectally forms with preserved dental" were found (Burrow-Bhattacharya 1970, pp. 9-10, §15).

3263 **tiṅ-* 'to eat': Pe. *tic-*/*cic-* (past stem), *tinjeŋ*/*cinjeŋ* (infinitive), *tinj-*/*cinj-* (special base—but only *tinga-* motion base), *tīc-*/*cīc-* 'to feed', *tīcpa-*/*cīcpa-* (intensive base).

3473 **tay-* 'to sew, weave as a wreath, etc.': Pe. *tānj-*/*cānj-* (past stem *tānc-*/*cānc-*) 'to weave flowers into a garland' (Pe. is to be added to *DEDR*).

3540 **tōc-* 'to carry a load on the head': Pe. *jōc-* (past stem *jōcc-*) id.

3566 *tōn̲r- 'to be visible, appear', *tōr̲r̲- 'to cause to appear, show': Pe. *tōnj-/cōnj-* (past stem *tōnc-/cōnc-*) 'to appear', *tōc-/cōc-* (past stem *tōcc-/cōcc-*) 'to show'. (Zvelebil, loc. cit., gives this as his only instance of 'sporadic' **c-* > *t-*; his case is not strengthened by citation of Tulu [presumably dialectal] *sōjuni, sōrikè* beside *tōjuni, tōrikè*.)

The same assimilation is found dialectally in Kuwi (Burrow-Bhattacharya 1963, p. 233). Six instances have been recorded, the first four given being etyma of those found in Pengo.

3263 (Su. P. Israel) *tic-/cic-* past stem of *tin-* 'to eat'.

3473 (Su.) *cāc-*, (Israel) *tāc-/cāc-* 'to sew'.

3540 (Su.) *jucc-*, (F. S. Israel) *jũc-* 'to carry on the head' (P. *ducc-*).

3566 (Su.) *cōnj-* 'to appear' (other dialects *tōnj-*).

3367 **tu̲r-*, **tu̲r̲r̲-* various meanings including 'to block up': Kuwi (Su.) *cuc-* id., (Israel) *tuc-/cuc-* id., (F.S.) *cucu* 'lid, stopper', (Israel) *tucu/cucu* 'lid, cork'. The entries for Israel are to be corrected in *DEDR*.

3518 Pe. *dol* 'ground': Kuwi (S.) *tojjo* id., (F.) *chōjjō* 'floor', (Israel) *tojo, cojo* id. The Kuwi forms are locative of **tol* (Israel 1979, pp. 64, 72; cf. *ilu* 'house', *ij-o* 'in the house'). The entry for Israel is to be corrected in *DEDR*.

In neither language does this *c-* develop to *h-*, as does PDr. **c-*. The assimilation must be chronologically later than the other development. And yet the only instance of **t-*>*c-* recorded for Pengo's close relative Manḍa has *h-*, viz., 3566 *hũnj-* 'to appear' (alongside *tũc-* 'to show'): Pe. *cōnj-* (see above). Burrow (1976, pp. 41-42) has written (especially of past stem formations): "Manda agrees with Pengo (and Kuvi) in turning *s* into *h*, and carries the process further than Pengo," and presumably *hũnj-* is covered by the statement—but so far we have so little Manḍa material that any conclusion, especially about chronology, would be premature.

In one instance in Kannaḍa there is clearly assimilation to a following palatal: 3516 **tol-* 'old, first', Ka. *coccal* 'first pregnancy' (*-cal*<2733 **cũl* 'pregnancy'; for the meaning, cf. Ko. *tol vi·r* 'first pregnancy'). In 3474 also Ka. shows assimilation (this time of *t-* to a following *-s-*) if, following Subrahmanyam's general statement (1983, pp. 331-33, §23.2.2), we reconstruct for the group **taci* 'young plant', which has **-c-*>*-y-* in Ka. (Gowda dialect) *deyi*, Ta. Ma. *tai*, Te. *tē-ga*, but retains *-s-* (<**-c-*) in Ka. *sasi* (Tulu *sasi* is probably a borrowing from Ka.). Parji also has a single instance of assimilation: 3291 **tuñc-*, Pa. *tuñ-*, (southern dialect) *cuñ-* 'to sleep'.

Seemingly unmotivated and quite 'sporadic', are other occurrences of **t-*>**c-* in one language only each, frequently with *t-* (occasionally *d-*) also occurring alongside of **c-* in the same language. In the 8 instances to be listed here, Ka. appears four times, Kuwi twice, Te. and Br. once each. The Ka. instances are: 3266 *tī* 'to burn, scorch', n. 'fire', *sī* 'to be burnt, scorched' (with two noun derivatives *sīkari, sīku*); 3268b *tēnu, jēn(u)* 'honey'; 3273 *tīḍu* 'to rub, clean, etc.', (Pampabhārata) *sīṇṭi* 'having wiped out' (cf. Pe. *ṭīnḍ-* 'to sharpen', with retroflexion of *t-* to *ṭ-* because of the following retroflex clus-

ter); 3470 *tēr̤, cēr̤(u)* 'scorpion'. In these instances **t-* is followed by a front vowel (*ī, ē*); this might be the conditioning factor in the change to **c-* (in some of the following instances there is a similar environment). However, it is not the case in most of the instances that follow, including one at least in which Ka. is involved.

The two instances of the change in Kuwi follow.

3458 **tēy-* 'to rub away, wipe off, etc.': Kuwi (Ṭ.) *dē-*, (Israel) *de?-*, *jē-* 'to wipe off'.[32]

2962 Kuwi (Israel) *tuṇḍ-*, *ṭuṇḍ-*, *suṇḍ-* 'to shut' (to be added in *DEDR*; variously recorded in the other sources, Schulze also with *ḍ-* and *ḍ-*), Kui *ṭunḍa* id., plural action *ṭuṭka*, Go. (Trench) *tūndām* 'bar of wood to secure door at night'. Although this group was entered in *DEDR* under *ṭ-*, it is clear that the reconstruction must have *t-*, and the retroflex initial is due to assimilation (cf. Burrow-Bhattacharya 1963, p. 240: "as in most of the Dravidian languages of this area an initial dental [in Kuwi] is usually assimilated to a following cerebral," but without this example); it should be noted that Kuwi has *s-* (from **t-*) rather than *h-*, which would be regular <**c-*, or *c-*, which is the result of complete assimilation to a following palatal (see above.).

In 3314, **tuti* 'point, end', Telugu has both *tuda* and *suda* 'end, tip'. In 3246 all the languages (only Pengo and Malto are without etyma) have *t-* in **tiri-*, etc. 'to turn, revolve, wander about, etc.', except for Brahui, for which there is entered with a query *cirrēnging* 'to wander about'; in spite of the query (and though the word was not entered in Emeneau 1971) there can be no doubt that this is an instance of sporadic **t->c-*.

In five groups **t->*c-* occurs in several languages, but there is a sufficient spread of languages with *t-* to make reconstruction with **t-* certain.

3268a words for 'sweet' with **tī̆-*: *t-* in Ta. Ma. Te. Go. Konḍa Kur.; **c-* in Ka. (*s-*), Manḍ. (*h-*), Kui (*s-*), Kuwi (*h-*); To. *t-* and Tu. *t-*, *s-* are non-diagnostic. Kuwi (F.) *tīpa*, with *t-*, is probably borrowed from Te. (For relationship with 3268b quoted above, see Subrahmanyam 1983, p. 212, no. 771.)

3323 **tupp-* 'to spit': *t-* in Ta. Ma. Koḍ. Ka. Te. Go. Kur. Malt.; **c-* in Pe. (*c-*), Kui (*s-*), Kuwi (*h-*); To. *t-* is non-diagnostic. Kuwi *dopoki* 'spittle' (as reported by G. N. Mohanty) is somewhat uncertain. Malt. *tupg̣le*, *tulg̣pe* 'spittle' is better taken with its verb *tupe* 'to spit' than with 2862 **coḷḷ-*.

3376 **tūṅk-* 'to hang, sway, nod, doze, etc.', **tūkk-* 'to hoist, weigh, sway (tr.), etc.': *t-* in most of the languages; both *t-* and *j-* in Koḍ. and Ka. with somewhat different meanings, but probably still related (probably Koḍ. borrowed from Ka.).

3380 **tūṇṭ-* 'to shoot, push, thrust, etc.': *t-* in Ta. Ko., *d-* in Koḍ. Ka. Tu. Te.; **c-* in Ma. (*cūṇṭ-*, some special meanings as in Ta.) and Malt. (*cuṭ-* 'to cast, throw').

3291 **tŭy-* (**tuy-*V*l-* in Ta. Ma. To. Br.), **tuñc-* 'to sleep, repose, sit, etc.': *t-* in Ta. Ma. Ko. Pa. Ga. Br.; **c-* in Ka. Go. Konḍa Pe. Manḍ. Kui Kuwi. Since Ka. has other sporadic instances of **t->*c-*, it is only the CDr.

group Gondi-Kuwi that consistently shows *c-, and consequently agreement between SDr. and NDr. (Br.) is evidence for priority of *t-. This is backed by the evidence of 3376 *tũṅk- (see above), which is fairly certainly related to the present group (already in Krishnamurti 1961, p. 387, no. 588, but otherwise p. 90, §1.213).

In a number of groups there is uncertainty as to priority between *t- and *c-, in spite of occasional seeming certainty in the alphabetical placing in *DEDR*.

3390 Ta. and Ma. *tũr-* 'to be filled up, be closed up (as a pit or well); to fill up (tr.)': Kur. *cũr-* id.; clearly connected etyma, which *DEDR* put in the alphabetical place for *t-, but Pfeiffer (p. 77, no. 488) would find *c- "to be older than *t-*," because of the regular Toda change—an insufficient reason, and it is in fact quite uncertain which is prior in this instance.

3373 Ta. *tũ(vu)*, *tuvai* 'flesh, meat', Ma. *tuva* 'raw flesh': Br. *sū* 'flesh, meat'. This is similar in its uncertainty to 3390; in addition, it must be noted that Br. *s-* rather than *c-* (<*c-) is very doubtful (cf. §6.11 and §14, fn. 16). If Go. *savi*, *havi*, *avi* 'flesh, meat' (entered in *DEDR* with a query, since the vowels cause difficulty) can be related, it would be evidence for *c-. 728 *ū* id. can, in the present state of our knowledge, hardly be related with 3373, since it occurs in SDr., where it might be <**cũ*, but also in Maṇḍa and Kui-Kuwi, where this is hardly likely.

3379 Ta. *tūṇṭil* 'fish-hook, fishing tackle, hook': Ma. *cũṇṭal*, *cũṇṭa* 'fishing hook'. There is no criterion looking towards priority of one or the other. Connection with 3380 *tũṇṭ- 'to shoot, push or thrust away, etc.' is suggested (with a query) in *DEDR*. On the whole, the meaning connection seems unlikely. In 3380 Ma. has (sporadically) *cũṇṭ-* 'to shoot with crossbow, trim a lamp, catch fish'; the last meaning perhaps should be separated from the others and placed in 3379 as connected with the noun for 'fish-hook'. If so, the evidence for *t- in 3380 cannot be used towards a decision for 3379.

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NOTES

1. Abbreviations are often used for the language names. They are those used in *DEDR*: Ta. (Tamil), Ma. (Malayalam), ĀlKu. (Ālu Kuṛumba), Ko. (Kota), To. (Toda), Koḍ. (Koḍagu), Ka. (Kannaḍa), Tu. (Tulu), Kol. (Kolami), Nk.(Ch.) (Naiki of Chanda), Pa. (Parji), Ga. (Gadaba), Te. (Telugu), Go. (Gondi), Pe. (Pengo), Manḍ. (Manḍa), Kur. (Kuṛux), Malt. (Malto), Br. (Brahui); Konḍa, Kui, and Kuwi (Kuvi) are not abbreviated.

Other abbreviations are: Dr. (Dravidian), SDr. (South Dravidian), CDr. (Central Dravidian), NDr. (North Dravidian), IA (Indo-Aryan), Skt. (Sanskrit). Others, such as MIA and NIA, PDr., are common practice.—Dravidian etymologies are accompanied by a number, which refers, usually without further indication, to a numbered group in *DEDR*.—I must record my obligation to my colleague, Professor John Ohala, for advice on phonetic matters and for bibliographical references and loan of not easily accessible material, and to Professor and Mrs. George L. Hart III for advice on Tamil matters. On more strictly comparative Dravidian topics my debt to my late colleague, Professor T. Burrow, will be obvious. I am indebted too to others, especially Professors Padmanabh S. Jaini, Kamil Zvelebil, Bh. Krishnamurti, and P.S. Subrahmanyam. If I fail to agree in all details with these scholars, that is the nature of a developing field.

2. Subrahmanyam (1983, p. 40) gives them in the reverse order, but in his table of correspondences (pp. 47-48) and in his exposition, he goes from back to front. Zvelebil (1970) uses the reverse order. My 1970 sketch uses the order back to front, as do the etymological dictionary works by T. Burrow and myself.

3. For this 'coronal' feature, see Schiffman 1975, and 1980, pp. 100-10.

4. In all that follows, in referring to subgroups, I have used the following labels: South Dravidian (including Tuḷu; SDr.), Kol.-Ga. (i.e. Kolami-Naikṛi, Naiki of Chanda, Parji, Gadaba), Central Dravidian (including Telugu; CDr.), North Dravidian (NDr.). These would seem to treat these as four independent subgroups and ignores competing hypotheses concerning interrelationships among the first three; however, it does no injustice, I think, to the data that are here presented and discussed.

5. Gordon on Kuṛux (1976), p. 39: 'voiceless apico-lamino-postalveolar stop with sibilant release'. Subrahmanyam on Gondi of Adilabad (1968a), p. 6: 'a lamino-palatal affricate'.

6. On Gondi *c-* in a south central dialect (Adilabad-Yeotmal) and presumably in earliest Gondi, see the discussion at length in Appendix II.

7. The more usual symbol ʃ of Indologists, and other practice here replaces Firth's IPA symbol; for his boldface characters I have substituted Roman. In later quotations from other scholars I have used ʃ instead of the IPA symbol.

8. The statement (Zvelebil 1964, p. 246) that pronunciation of initial *c-* as [ʃ] is 'common to all dialects of the South' is inexact, as is that (ibid., pp. 244f.), that the affricate pronunciation separates the western dialect area from all other continental dialects. The statement in Zvelebil 1970, p. 108, §1.25.1.61, is very sketchy.

9. Allen (1953, p. 52, §2.02) deals with the Sanskrit 'palatal' varga, *c, j*, etc. He gives the description of the *Taittirīya-prātiśākhya* ii.36: *tālau jihvāmadhyena cavarge* 'in the *c*-series [i.e. *c ch j jh ñ*] contact is made with the middle of the tongue upon the palate'. He comments: "at the period described by our treatise [*c* etc.] appear still to have been true palatal plosives rather than prepalatal affricates such as are general in modern Indian pronunciations." If it were not for the failure of the old texts to describe the fricative type of release, there would be no temptation to posit the rare 'true palatal plosives' for the early Sanskrit period. The old Tamil grammar is clearly based on this point on the Sanskrit description of *c*.

10. This is a simplistic statement of the phenomena in Burrow and Bhattacharya's small collection of material (1950-51) which they kindly allowed me to include in Emeneau 1955 (see. p. vii and, for this matter, p. 131). In spite of some variation between *c, ts, s* and *ś*, it is to be noted, following a communication from Burrow-Bhattacharya, that "it is reported that the Kinwaṭ speakers are notorious for this characteristic", i.e. that they have *c* whereas other dialects have *s*.

11. Krishnamurti 1961, p. 21, §1.43; Subrahmanyam (1983, p. 317) says "the Brahmin dialect (i.e. standard) shows c-." Both these authorities have further remarks leading to a complicated history within Telugu, starting from the affricate as original.

12. For general treatment of another problem in the same subgroup of languages, see Krishnamurti (1978a).—An analogy to the series of changes *s-*>*h-*>zero is well-known for Greek: IE**s-*>Attic Greek *h-*>Ionic-Aeolic and all modern Greek, zero. In Iranian IE **s-*>*h-*. MIA *s*>NIA *h* is found in "Eastern Bengali, vulgar Gujarati, Singhalese (except at the end of the word), and intervocalically in Sindhi and Panjabi" (Bloch 1965, p. 73).

13. Bright (1978) explores the use of 'feature definitions', but with respect to a very specific areal problem involving sibilants which are not in detail those of our problem.

14. See e.g., Krishnamurti (1978a).

15. Krishnamurti (1961, p. 90, §1.214, and fn. 99) listed several examples, including the 'white ant' items, in which Kur.-Malt. seem to show loss of **c-*. All these have been treated otherwise later, in Pfeiffer (1972) or *DEDR* or both.

16. In a paper published in 1968, I argued that Br. *sal-/salī-* to 'stand, stand up, etc.' belonged to the group (*DEDR* 916) **ēṛ-*~**ēl-* 'to rise, get up; raise, lift up, arouse'. Br. would be the only member of the group to have evidence for **c-*. This would be acceptable if only the SDr. and Te. items showed loss of **c-*. However, there are included in *DEDR* 916 CDr. items, none of which shows **c-* and several of which definitely show zero. The inclusion of some of these items is uncertain. Those which have zero would seem to rule out an original **c-* for the group, and inclusion of the Br. item with evidence for **c-* seems improbable. Moreover, it now seems unlikely that **c-* is represented in Br. by anything but *c-*; see §6.11.

17. This is the same conclusion that Burrow had arrived at (1947, p. 146, fn. 1).

18. Zvelebil (1970, p. 106, fn. 23) offers an explanation for 'the *c-*/*t-* alternation' which is of this same nature ('loss of one of the components'), but finds difficulty in the statement, since the Prague School of that period insisted that 'a simplex [tʃ] phoneme', not being 'a complex [t+ʃ]', cannot lose a component, rigidity of theory here overriding fact.

19. 2119: Ta. *koy*, Ka. *koy*, *kuy*, Koḍ. *koy-*, To. *kwïy-*.
4534: Ta. *poy*, Ka. *poy*, *puy*, Koḍ. *poyy-*, To. *pïy-* (=**pwïy-*).
984: Ta. Ka. *oy*, *uy*, Koḍ. noun *uytï*, To. *üy-*.
3512: Ta. *toy*, Koḍ. *tuyⁿ-*, To. *tüy-*.
On the basis of 984 and 3512 Subrahmanyam (1983, p. 93) gives a rule **uy*>To. *üy*. But (ibid., pp. 142-44) he finds (p. 144) for these same instances a rule **o*>To. *ü*, noting that there is alternation of **u* and **o*, and he also finds (p. 142) a rule **o*>To. *wï* in other environments than before -C-*a*. It seems impossible to reconcile all this and to find a statement that will account for the double developments in Koḍ. and To., unless it be that the initials are the conditioning factor, viz., after *p-* and *k-* Koḍ. *-oy-*, To. *-wïy-*, and elsewhere (here after *t-* and zero) Koḍ. *-uy-*, To. *-üy-*. But this seems very much an ad hoc procedure. In fact, it takes no account of 1763: Ta. *kuyil* 'to perforate, bore', Koḍ. *kuy-* '(hole) is bored; to bore (hole), (insect) bites'; and it rules out a tempting new etymology: To. *kwïy-* (past stem *kwïc-*) 'to bubble, boil' (now in *DEDR* 2084 with a query), Koḍ. *kuy-* (past stem *kuyc-*) 'to be hot' (both past stems: **kuy-tt-*). We are forced at this point to leave it open whether **u* or **o* must be reconstructed.

20. For the formation, cf. Emeneau 1975.

21. In Burrow-Bhattacharya 1953, p. 3, §5 end, *cuyk-* was taken as a loanword from Halbi *suskāto* (cf. Hindi *susānā* 'to sob'<Skt. *śuṣ* 'to hiss, pant', *CDIAL* 12545), with *s*>*y* before stop; but the later inclusion in *DED* (even with a query) seems preferable, and *-k-* is explained as in the text.

22. These groups had been recognized (in part) previously by other scholars. The usual treatment, seen e.g., in Burrow 1947, p. 143, fn. 1, was to consider the NDr. velars to represent original PDr. velars, which were palatalized somehow in the other languages. My reversal of this is, I hope, justified.

23. It must be noted, with Emeneau 1961, Subrahmanyam 1983, p. 324, that when *u* is< **o*, **c-*>*c-*, in 2835 (Br. *cuṭṭ-* 'to drip': Ta. *coṭṭu* 'to fall in drops') and 2883 (Kur.

curx- 'to pour', Malt. *curge* 'to ooze out', Br. *curr-* 'to flow, gush': Ta. *cōr, cori* 'to flow down, ooze, etc.'); and that onomatopoetic formations show deviations from expected phonetic change, in 2621b (Kur. *comkh-/cumkh-* 'to kiss', Malt. *cumq-* id., Br. *cūp-* 'to suck': Ta. *cūppu, cūmp-* 'to suck, fondle with the lips', Go. *suhk-, u?k-* 'to suck') and 2712 (Kur. *sur^{u}p-* 'to drink noisily': Ka. *suṟuku* 'sound produced by supping', Nk. *curpip-* 'to suck', Kuwi *surpu re?-* 'to suck in, slurp').

24. It has been suggested by F.B.J. Kuiper by letter to Manfred Mayrhofer (*Kurzgefasstes etymologisches Wörterbuch des Altindischen*, vol. III, p. 596 [1976], s.v. *hintālaḥ* ['date-palm']) that Kur. *kĭndā* is derived from Munda, the forms quoted from that language family being Santali *kindet?* 'a wild date-palm' and Mundari *kindad?* 'a stemless palm'. These words have not been listed by Heinz-Jürgen Pinnow, *Versuch einer historischen Lautlehre der Kharia-Sprache* (1959), which argues that they are not native Munda (or Austroasiatic). I have been unable to find any entry with the meaning 'date-palm' in Pinnow. The Bonda language has *ŋguŋrak?* (Sudhibhushan Bhattacharya, *A Bonda Dictionary* [Poona, Deccan College, 1968], p. 52), the shape of which seems to be evidence that there is indeed a Munda (? Austroasiatic) word for 'date-palm' which is quite unlike the Santali-Mundari words. It is arguable, then, that the Santali-Mundari words are borrowed from the neighbouring Kuṛux language (as is Sora/Savara *sindī-n* 'a variety of date or toddy tree' from some neighbouring CDr. language).

25. Krishnamurti's connection with **kevi* 'ear' (Ma. *ceppi*) is not cogent.

26. I.e., there is no evidence in Te. for the basic verb with **ē*, which is that of CDr. (Go.-Kuwi; but the verb used in Kui-Kuwi is in *DEDR* 2144), but only, though somewhat late (Krishnamurti 1961, p. 363, no. 468), for that with secondary **ĕ* due to the following derivative suffix *-ug-*. Krishnamurti's hypothesis (lecture and correspondence) that the CDr. (Go.-Kuwi) nouns **cēṛṛ-* are borrowed from early Te. (PDr. **kēṛṛ-*>early Te. **cēṛṛ-*) before **ṛṛ*>Te. *ṭṭ*, is buttressed by his observation that the CDr. tribal people do not make winnowing baskets but "buy them from the Telugu at shandies [periodical, usually weekly, markets; *DBIA*, no. 140]." On the other hand, if the basic forms are from PDr. **k-*, there may be a chronological difficulty, since it would seem that in Te. **ṛṛ*>*ṭṭ* was completed prior to the completion of palatalization of **k-* (forms with *k-* from the verb **key* [*DEDR* 1957] are still found in inscriptions as late as the 8th century A.D.). This difficulty is removed if **c-* is original; borrowing would still be possible, but cannot then be proved from the linguistic evidence (i.e. CDr. **cēṛṛ-* might be either inherited or borrowed from early Te.). The hypothesis of borrowing does not address the problem of the noun derivative suffix *-i* in CDr. (and in NK. (Ch.) Pa. Ga. as well); but this derivative suffix has not been examined in detail in any connection.

27. Kui-Kuwi *-r-* cannot be interpreted as 'intrusive' *-r-*, since it is only Kui (and not Kuwi) that has instances of this; see Burrow-Bhattacharya 1961, pp. 126-27, with such examples as 3376 Kui *drūnga* 'to swing, oscillate', *trupka* 'to oscillate' (: **tūṅk-* 'to hang, swing', including Kuwi *tūṅg-* 'to hang'); 4889 Kui *mrūmbu* 'face' (: Pe. *mūm*, Manḍ. *mūmb*, Kuwi *mūmbu*; *ū*<**-uka-* in **mukam*); 1117 Kui *krāṇḍi* 'black hornet' (: Go *kāṇḍul* 'hornet', Ta. *kaṭampai* id., etc.); 2618 Kui *srīnda* 'to blow the nose' (: **cīnt-*, e.g., Ta. *cīntu*, Go. *hīnd-, īnd-*, Kuwi *sīnd-, hīnd-*); cf. also 1450, 1952, 2363, 5201 ('tail', Kuwi *leŋ(g)uṇi*, Kui *ḍrēnguni*, etc. [*ḍ*<**l*]). It would be possible to think of **ṛ* (as in Ta. *cīṛ*)>Kui-Kuwi *r*. This, however, is unlikely, since the expected representative in both languages is *ṛ* (for Kuwi, see Burrow-Bhattacharya 1963, pp. 234ff.). A few items in Winfield's recording of Kui show *r* instead of the expected *ṛ*. These have been noted by Burrow-Bhattacharya 1961, p. 125, as examples of Winfield's uncertainty (rather rare, indeed) as between *r* and *ṛ*, which Burrow and Bhattacharya were able at times to correct; e.g., though he recorded *krōga* 'fat' (2146 **koṛu*), they heard *kṛōga* (cf. Kuwi *koṛva*). But in spite of their efforts, some instances remain where unexpected *r* is either still uncorrected or is indeed correct. In 5082 **meṛ. . . .* 'to plaster, especially with cowdung solution' certainly argues for Kui *mṛāṇḍa*

(not in the record), rather than Winfield's *mrāṇḍa* (cf. Kuwi [Israel] *mṇek-*). On the other hand, in 2249 Ta. *kōṟai*, Ka. *kõre* 'phlegm' have *r*, but *r* was recorded by Burrow and Bhattacharya in Kui *gṙoho*, Kuwi (Ḍongriya Kondh dialect) *krahu*. The very difficult group 3120 'liver' must have **r* (Pa. *taṟuŋg*, Pe. *tṟākiŋ*, etc.); Kui in Winfield has *trāḍa*, but Burrow and Bhattacharya recorded *tṛāḍaŋga*, and yet Kuwi (Israel) has *traˀna* (with *r*). In 4990 **mur-* 'cubit, elbow, knee', Kui has (with unexplained *-i-*) *miru*, *mriu* 'kneejoint' and *mireka* 'cubit's length (*-ka*<**kay* 'arm, hand'); nothing has been recorded for Kuwi. 1818 **kural*, **kurāy*, etc. 'tube-shaped thing': Kui *kṛāu* 'hole, pit' (: Kuwi [Israel] *gṛayu*), but also *kr̈õḍu* 'tube, quiver' (<*kural*; **l*>*ḍ*) and *krīpa* 'pool, spring' (cf. Ga. *kuṛup* 'a well', Go. [Muria] *koṛpanj* 'pit to trap animals'). Two other puzzles are 1767 and 5123. The evidence is too confused and slight to let one find it more than possible that Kui *srī-*, Kuwi *sir-*, *srī-* 'to rot' have **r*>*r*. It is even possible that there is here a suffixal **r*, though there is no evidence for this otherwise in the etymological group.

28. The Tulu items in 3178 include *tār-* 'to sink in, plunge' and *tāl-* 'to fall off, drop down'. These must be the representatives of **tār-* in the non-brahmin and the brahmin dialects respectively (Ramaswami Aiyar 1936, p. 401; Shankara Bhat 1966, pp. 12-13; *DEDR*, pp. xii-xiii). And yet Männer's *tāl-*, rather than *tāḷ-*, seems improbable; his entry ends with "cf. tāḷuni," this latter meaning 'to bear, endure, suffer, etc.' and belonging in the quite separate *DEDR* entry 3188 (**tāḷ-*). Did he intend by his notation "cf." that *tāḷ-* is expected or correct, or what? The Mariappa Bhat-Kedilaya dictionary (1967) has the expected items *tāṙu* and *tāḷu* 'to fall down' (without, of course, dialect attributions). Shankara Bhat (1966, p. 19, 3rd line from bottom) has four non-brahmin items *ta:rï*, *ca:rï*, *sa:rï*, *ha:rï* 'to sink in earth (water)' (the expected *a:rï* of Jain[2] being displaced by a presumably borrowed *ta:rï*).

29. *Voc.*, p. 77.

30. It may be noted that the expected Hill Maṛia and Koya **ā-* is replaced by *ḍol-* (*Voc.* 1616, *DEDR* 2988), presumably because of inconvenient homophony with *ā-* 'to become' (*Voc.* 115, *DEDR* 333; add KoyaSu. *ā-*).

31. Hindi *cummal* (*CDIAL* 4869) would seem to be irrelevant since the Adilabad dialect is in Marathi territory (the word there is *cũbaḷ* [*c*=*ts*]) rather than Hindi. In any case the IA items in *CDIAL* 4869 are probably of Dravidian origin.

32. Israel records *jēsk-* 'to clean' (to be added to *DEDR*). This is the plural action form of *jē-*. Since no other similar pair is in the record, it is uncertain how to state the formation and especially the presence of *-s-*. Is it possible that F.'s recording of the verb as *jej-* implies a palatal consonant as ending the stem (and *jej-*<**tej-* by the usual Kuwi assimilation) and *-j-*>*-s-* before the suffix *-k-* of the plural action formation?

CHAPTER XXII

THE LANGUAGES OF THE NILGIRIS

The language of the Bergies is a dialect of the Canarese; that of the Todevies and Koties is supposed to be a dialect of the Tamil; but it is a singular fact that the Todevies cannot speak the language of the Koties, or the Koties that of the Todevies, and that the language of both these classes is equally unintelligible to the Bergies.

—Anon. (Sullivan?) 1819:lv

UNIQUE AS are the Nilgiri communities in many respects in India, they are unique too linguistically. They are described elsewhere in this book as consisting of a nucleus which is a mini caste-system, surrounded by a number of peripheral jungle communities which also display caste-like features, e.g. in the economic relationships of some of them with the nuclear communities. It will be remembered that communities in Indian caste complexes tend to insist on their differences, both for mutual differentiation and as symbols of intra-community solidarity.[1] Such differences are to be seen in the linguistic sphere since castes or clusters of castes within the area of one language often speak differentiating dialects of that language. There are also numerous instances throughout the subcontinent of immigrant castes, occupational or of other characters, retaining as home language the different language that was brought from the original homeland; e.g. the Saurashtrian weaver caste in Tamil Nadu still has its original Indo-Aryan language as its home language, the Aiyar Brahmans in Kerala still speak Tamil at home, the blacksmiths in Hunza still speak the Indo-Aryan language Dumaki in this Burushaski-speaking country. But the uniqueness of the Nilgiris lies in the extreme to which this tendency is carried. The three most conspicuous communities, Toda, Kota, Badaga, speak three mutually unintelligible languages, all Dravidian to be sure, but still very different. For the other, peripheral communities the matter has not yet been sufficiently researched to admit of clearcut statement. So far it is clear that these communities do not speak the languages of the nuclear communities. It is also clear that several languages or dialects are to be recognized; preliminary reports have claimed separate language status for Irula and the various Kuṟumba languages. We have no certain reports yet on such matters as mutual intelligibility between these last speech forms and between them and the surrounding major languages (especially

Blue Mountains: The Ethnography and Biogeography of a South India Region, pp. 133-43 (1989).

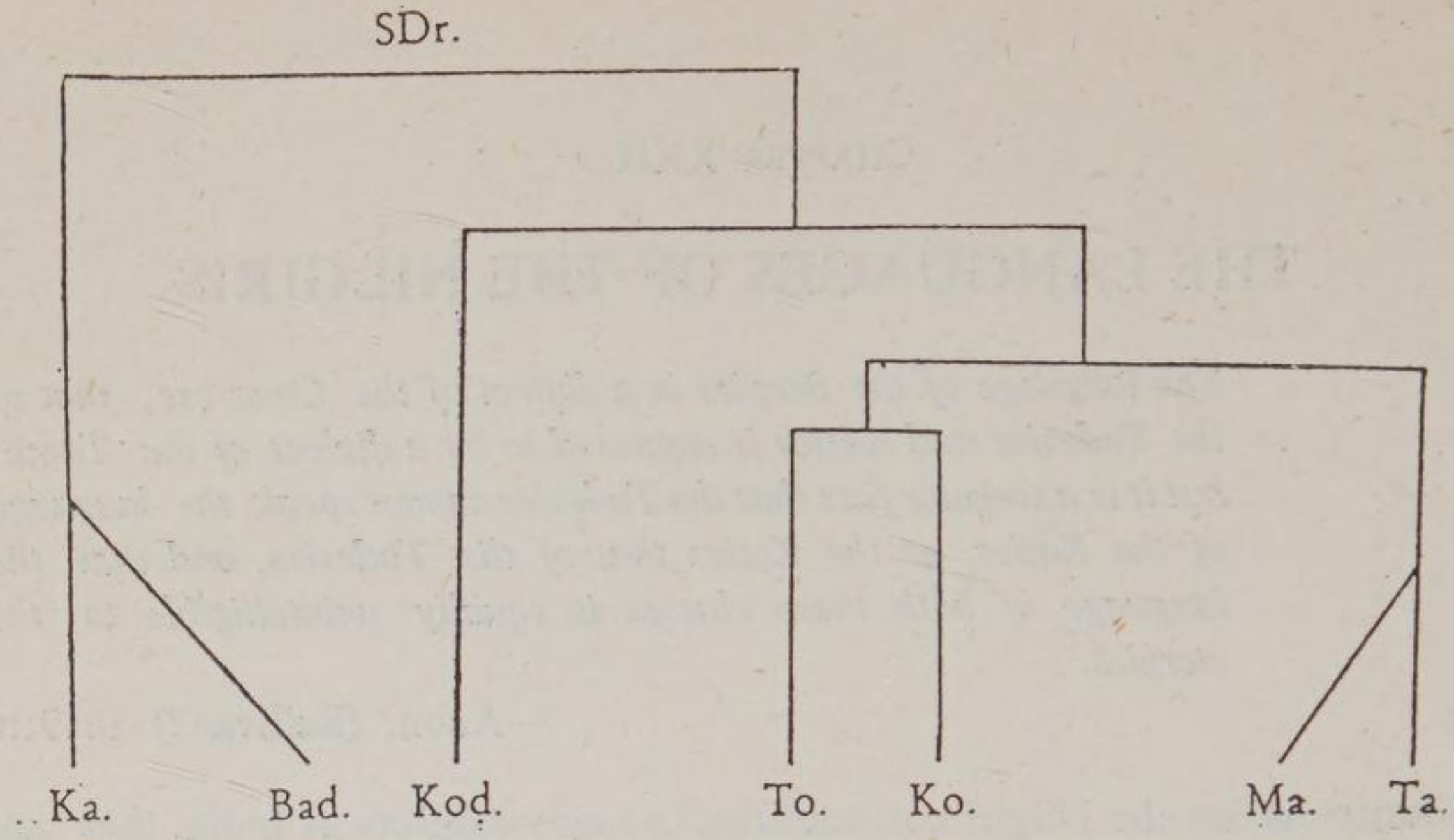

FIG. 5.1 Stemma for South Dravidian.

Tamil and Kannaḍa), except that Irula is reported (Zvelebil 1973:3) to be an independent language from Tamil on the ground of mutual unintelligibility.

These diverse languages all belong to the Dravidian family. Moreover, historical analysis of the family has set up a genetically closely related South Dravidian sub-family, to which all the Nilgiri languages belong. The well-known members of the South Dravidian sub-family are Tamil and the very closely related Malayalam, the Nilgiri languages Toda and Kota, Koḍagu of Coorg, the somewhat divergent Kannaḍa, and (probably) the even more divergent Tulu.

The position of Toda and Kota within the South Dravidian sub-family and their relationship to one another have been investigated in Emeneau 1956, and the conclusions reached there and sharpened somewhat in Emeneau 1967b[2] still stand. Many features of Toda and Kota make it clear that they belong to the South Dravidian sub-family; detailed examination of the formation of the past tense stem of the verb (Emeneau 1967b) shows that their nearest relatives are Tamil/Malayalam and Koḍagu, Kannaḍa having diverged in this feature from the rest of the South Dravidian sub-family. Subrahmanyam (1971:517) has taken Kota/Toda to be a subgroup distinct from Tamil/Malayalam/Koḍagu, stating several important innovations which establish both the distinction from the latter group and the unity of Kota and Toda as a group. These innovations include most importantly, the use of the inherited past tense stem of the verb as the basis also for the present tense and some other formations; several other innovations are of a more complex nature and need not be stated here.

In my publication (1956:35-46) I stated that the Toda past paradigms have a sibilant suffix as the past morpheme and, corresponding to this, Kota has a past unreal (irrealis; e.g. 'I would have done, if so-and-so had been the case')

with suffix *-c-*; these suffixes are related to a past suffix **-c-*[3] that is reconstructable for proto-Dravidian (Subrahmanyam 1971: 221-5), but that in the South Dravidian sub-family appears as a distinguishing morpheme of a paradigm only in the Nilgiri languages and in Old Tamil. Consequently, it is argued that Toda/Kota are closely related to Old Tamil.

Since a conspicuous Tamil/Malayalam innovation, palatalization of initial **k-* before front vowels, which had taken place before the Tamil record started, does not appear in the Nilgiri languages, we must say that the Nilgiri languages split off from pre-Tamil before the palatalization reached the territory from which the Nilgiri aborigines migrated into the hills. In (1967b: 367) I drew the inference that the split must have taken place 'probably at the period round about the beginning of the Tamil recorded texts'; this of course is a *terminus ante quem*, and the period earlier than this at which the split might have taken place is quite unknown.

The innovation of the Nilgiri languages' extension of the original past tense stem to other paradigms besides the past may be taken as evidence for the languages of the Todas and Kotas having been unified at the time of the migration and for an indeterminate period thereafter. Many innovations in the languages of the two communities, and especially the very complex and numerous phonological innovations on the Toda side, have produced the two very different languages of the present day.

Badaga is obviously closely related to Kannaḍa. For example, in the formation of the past tense of the verb it is in most details like Kannaḍa rather than the rest of the South Dravidian sub-family; moreover, it has the unique Kannaḍa change of original initial **p-* to *h-*. However, even with our present imperfect knowledge of Badaga, it is possible to identify several features in which it agrees with the languages of the Nilgiri subgroup (Kota and Toda) rather than with Kannaḍa.[4] Such traits are to be regarded as the result of diffusion from the Nilgiri subgroup.

When Badaga becomes better known than it is now, it may turn out that it is to be classified as having merely dialectal status, on all fours with the other already well-recognized local dialects of Kannaḍa. Most references to Badaga have treated it thus. The major differences from Kannaḍa that have already been recorded give one pause, but on the question of mutual intelligibility with Kannaḍa Hockings [1980a: 11] writes that 'it [Badaga] and the Kannaḍa of Mysore are, with some effort, mutually intelligible'.

Irula, i.e. the Irula dialects (including Kasaba, Urali, and possibly Sholega), is closely related to Tamil, but the published accounts (Zvelebil 1973, 1979) treat it as a separate language rather than merely a dialect of Tamil, and it and Tamil are mutually unintelligible.

Material on the languages of the various Kuṟumba tribes has so far only been published in a preliminary way. The language of the Pālu Kuṟumbas (those best known to the Todas and Kotas; their chief village is that known as Toḍiki or Bāni, the latter being the Toda Po·ny) is classed by Kapp (1978a:

512) with Tamil/Malayalam, but is said to present 'more or less strong Kannaḍa influence'. The Ālu Kuṟumba language is said (ibid.: 513) to be much more Kannaḍa-like, and judgment is reserved on its exact classification. Such names as Jēnu Kuṟumba, Beṭṭa Kuṟumba, Muḷḷu Kuṟumba are in the record, but too little has yet been published for anything to be said. The same must be said for Paṇiyan, Yerukala/Korava, Wainad Chetti, etc.; they are still only names (Diffloth 1968).

The polyglot structure of the people of the Nilgiris must obviously have presented difficulties of communication at all periods. In the present period, i.e. since penetration by outsiders from the beginning of the nineteenth century, some proficiency in Tamil has been the major addition for all who have had contacts with the outsiders; English was a bad second language during the British régime.

Internal communications, however, which presented the major problem during the many centuries before outside contacts became pressing, are probably of greater interest. At the same time the subject presents great difficulty because of the almost total lack of direct evidence. The most informative account is that of Rivers (1906: 15-16); it is worth reproducing in part:

> . . .the chief source of error in previous accounts of the Todas. In their extensive intercourse with the Badagas, the Todas use the language of this people, with which they appear to be perfectly familiar. The Toda language is very difficult to understand, and the literature shows that from the first, most of those who have investigated Toda customs have used the Badaga language or Tamil as their means of communication. Every Toda village, every Toda institution or office, and nearly every object used by the Todas has its Badaga name as well as its proper Toda name

and in consequence the early accounts of the Todas and of Nilgiri toponymy by Western observers almost always were presented with Badaga words rather than Toda: hence the need for Rivers (1906: 734-7) to provide a list of Toda hamlets with both Toda and Badaga names. This is good evidence that communication between Todas and Badagas involved bilingualism for the Todas rather than for the Badagas. That many of the Todas were (many still are) somewhat, or even very, proficient in the Badaga language is clear from the infiltration of Badaga words into the Toda language, whether of everyday use or of song. Examples of the latter are given in Emeneau 1979b: 43-4, such as use of the doublets püsy (Toda) and üly (Badaga) for 'tiger', po·b (Toda) and o·f (Badaga) for 'snake', in which the Badaga equivalents huli and hāvu have initial *h-* corresponding to Toda initial *p-* but Toda pronunciation deletes *h-*. In general Toda usage (prose or song), oky 'bedding, sleeping-place' must be a borrowing from a Badaga word (hagalu; Old Kannaḍa paṟke, pakke, modern Kannaḍa hakke; *DEDR* 4007)[5]. That Toda pronunciation of Badaga is idiosyncratic is obvious, but the Toda 'accent' was (and is)

undoubtedly not too difficult for Badagas to comprehend. How many Badagas reciprocated by learning Toda is unknown, but there must have been some, to make Badaga participation in the Toda council effective on the occasions when the debate concerned relations between Todas and Badagas (Rivers 1906: 550)—unless indeed on such occasions Badaga was the language used. During the 1930s I often saw a Badaga at Toda ceremonies and was informed that he spent most of his time with the Todas; unfortunately, I failed to inquire whether he understood Toda, but imagine that he did. My impression is that Badaga knowledge of the Toda language was rare in the early part of this century and that the Todas were the bilinguals in Toda/Badaga communication situations.

That the situation was not always thus is however to be inferred from the phenomena of convergence that have already been identified.[6] Badaga, although basically a Kannaḍa dialect, and in spite of the paucity of Badaga data so far available, has already been shown to have some features that it can only have acquired from the Nilgiri languages. This must mean that at some period Badagas, in some numbers, were fluently bilingual in Toda or Kota. Considering the realities of the caste situation and of the economic situation as regards Badaga acquisition of land from the Todas, Toda is more likely than Kota to have been the second language. The period of such bilingualism must have been the beginning of Badaga settlement when they were comparatively few in numbers and were much more dependent on Toda favour than they became in recent centuries. Whether the Badagas would ever have deigned to speak in the low-caste language of the Kotas, when they were dickering for their menial services as blacksmiths, potters, or musicians, is probably unlikely.

There is much less known or to be inferred about Kota. Nothing, so far as I know, has been recorded about the language used between Todas and Kotas on the fairly numerous occasions when economic interchanges (funeral music and disposal of slaughtered buffaloes at Toda funerals, acquiring of iron tools and pottery from the Kotas, etc.) were taking place. These communications were fairly rigorously channelled, and it can be imagined that utterances were rather formulaic, but there is no direct evidence. Considering the low status of the Kotas, I would guess that the Todas spoke in Toda, and the Kotas had to do the hard work of understanding—in other words, such bilingualism as there was devolved on the Kotas.

Similarly, in the situation involving Badagas and Kotas, it seems probable that the Kotas were forced to be bilingual (as was implied above). Certainly, Kota like Toda shows the influence of Badaga in its lexicon. An example is the verb *or-* (*oṭ-*) 'to undertake (vow, responsibility), obey' (alongside the inherited *por-* [*poṭ-*] 'to bear (child in arms), obey the words of', *DEDR* 4565). An even more weighty piece of evidence is the Kota verb *o·g-* (*o·y-*, *o·n-*) 'to go' (*DEDR* 4572), which should have initial *p-* but shows the influence of the Badaga verb *ho·g-* (Old Kannaḍa *pōg-*), the initial *h-* of Badaga

being deleted in Kota borrowing as it is in Toda (Emeneau 1965: 20-2; 1980: 80-1).

On the situation as it involves Kuṟumbas, apparently in the main the Pālu Kuṟumbas of Bāni *vis-à-vis* Todas and Kotas, and Ālu Kuṟumbas *vis-à-vis* Badagas (Kapp 1978a: 512), we have practically no evidence. However, since Kapp reports that the language of the Ālu Kuṟumbas is strongly influenced by Kannaḍa (? Badaga), it is possible to infer that these Kuṟumbas have had to be largely bilingual in Badaga.

Of the situation as regards the Irulas, Zvelebil (1979: viii) reports that in addition to their own language 'they know mostly Badaga, the lingua franca of the Nilgiris, and Tamil (the Kasavas [alias Northern Irulas] tend to know rather Kannaḍa than Tamil)'.

Taken altogether then, in the more recent aboriginal times, Badaga, the language of the most numerous community, became the second language of the bilinguals in practically all the rest of the Nilgiri communities. There is however evidence within the Badaga language itself that at an earlier time, probably a period of still undertermined length (decades or centuries?) immediately after the arrival of the first Badagas in the Nilgiris, the Badagas were the bilinguals, being forced by the nature of their situation to learn the language of the earlier inhabitants with whom they had to deal for favors, i.e. the Todas. That it was a period of intense bilingualism seems clear from the nature of the structural traits in which Badaga shows Nilgiri influences as discussed below.

Recognition of this extensive polyglottism and bilingualism/multilingualism leads one to attempt consideration of the Nilgiris as a 'linguistic area'. Linguistic area studies in recent time have usually focused on areas 'which include languages belonging to more than one family but showing traits in common which are found not to belong to the other members of (at least) one of the families'.[7] However, there has been discussion as to application of the theory and methodology to situations in which languages of the same family or dialects of the same languages are involved (Emeneau 1965: 27; 1980: 127). 'Convergence area' and 'diffusion area' were suggested as alternative terms, and in the present situation 'multilingual convergence area' would be very specifically suitable. The term 'microarea' has also been used (Zvelebil 1980: 4, n. 15, following Diffloth 1975: 55, n. 5), and applied especially to those smaller areas within India in which the effects of convergence can be identified. The languages may belong to different families; e.g. the representation of palatals by *ts* and *dz* affricates is a trait that identifies a microarea including Indo-Aryan Marathi and southern Oriya, Dravidian Telugu, northern Kannaḍa, and some of the tribal Dravidian languages of central India, and Munda Korku (Emeneau 1956: 7-8; 1980: 111); the languages of old Bastar State, Indo-Aryan Halbi, Dravidian Parji and various Gondi dialects, have many lexical items that are found nowhere else (communication from T. Burrow). Or the languages may belong to one family or

even to one sub-branch of a family, and in this sense the Nilgiris can be treated as a linguistic microarea.

A methodological point in area studies must be recalled. The traits that are of greatest interest in the identification of a linguistic area are structural and typological rather than lexical (Emeneau 1980: 2-3). Lexical items may easily diffuse from any one language to any other without the question of a linguistic area arising, e.g. Chinese words for *tea* appear in all the languages of Europe. Consequently, areal studies have concentrated on structural traits, and lexical data have been used in a subsidiary way as secondary evidence to be adduced once an area has been identified on the basis of structural convergence (Emeneau 1971a: 46; 1980: 179).

Nilgiri areal study has been begun by Zvelebil (1980), and already shows interesting results. Identification of structural traits has so far been difficult, since few of the languages have been studied in sufficient depth to allow such traits to be identified in a broad range of languages. One trait of the verb morphology, though only found so far in three languages, is clearly a feature of the Nilgiri area, since it is only found there. Distinction in the 1st personal plural between exclusive (speaker+referee, e.g. 'I and he') and inclusive (speaker+addressee±referee, e.g. 'I and you') is a Dravidian trait both in pronouns and in the pronominal reference of verbs (for this and the following details, Subrahmanyam 1971: 406-9). In the South Dravidian sub-family there has been a loss of the distinction in the verb inflection in Tamil/Malayalam, Koḍagu, and Kannaḍa, including Badaga. Some of the Tamil grammarians give *-am/-ām* for inclusive and *-em/-ēm* for exclusive; modern Tamil has *-ōm* for first plural without distinction. Comparative evidence (from Telugu) leads to reconstruction of **-am/*-ām* as the suffix of the inclusive. Several of the Nilgiri languages have the distinction in the verb, the inclusive form being: Toda *-um*, Kota *-o·m*, Irula *-o/-om*. Reconstruction on the basis of Toda and Kota is **-om/*-ōm* (Emeneau 1979a: 227-8), and the Irula evidence agrees perfectly with this. It has been suggested tentatively (Zvelebil 1973: 25) that the origin of the Irula suffix was an original, but unrecorded, use of the Tamil suffix *-ōm* for inclusive rather than for general 1st plural. However, at the moment it seems easier to regard the use of the suffix in the Nilgiri languages as an innovation, probably originating in Toda/Kota. Whatever the final solution may be, it is an areal trait of a structural kind. (Kuṟumba evidence, as supplied in a preliminary way by Kapp, places Ālu Kuṟumba with the generality of the South Dravidian sub-family. Pālu Kuṟumba has inclusive *-a·mu*, exclusive *-e·mu* [like the statements of the Tamil grammarians!] the significance of this is still uncertain.)

That Badaga shares some areal features with Toda and Kota, having been influenced by them, has been demonstrated for several features. Badaga has numerous pairs of intransitive-transitive verbs in which the contrast is carried by contrasting past tense suffixes. This is a feature of the South Dravidian languages Tamil/Malayalam, Koḍagu, and Toda/Kota, but not of Kannaḍa.

It has been argued in detail (Emeneau 1967b: 366, §1.5, n. 2; 392-4, §5.4) that the stimulus to building up this morphological feature in Badaga came from Toda/Kota but that the Badaga details were developed to some degree independently. No description including this trait has yet emerged for Irula. It is stated that the trait is found in Ālu Kuṟumba and Pālu Kuṟumba; historical interpretation is not yet at hand.

Similarly, the South Dravidian languages Malayalam, Koḍagu, and also Tamil as described in the old Tolkāppiyam grammar have two verbs meaning 'to give', **taru* when the indirect object is 1st or 2nd person, **koṭu* when it is 3rd person. Toda and Kota also have representatives of these two verbs. Kannaḍa does not, but Badaga does, and it is clear (Emeneau 1967b: 391, §5.2) that Badaga owes this trait (structural or lexical?) to the influence of the old Nilgiri languages. It is recorded by Kapp that these two verbs are 'common in Ālu Kuṟumba and Pālu Kuṟumba'. The matter of usage is not yet clear in Irula, although both verbs have been recorded.

In phonology, Toda and Kota, Irula, Pālu Kuṟumba (Kapp 1978a: 513), Beṭṭa Kuṟumba, and Paṇiyan have preserved, in the main without change, contrast between dental, alveolar, and retroflex stops and, in the case of the former two positions, trills (Kota has lost this latter contrast but Ālu Kuṟumba preserves it) (Zvelebil 1980: 18-19). Since this proto-Dravidian contrast is preserved in Malayalam, Old Tamil, and in the matter of the trills in several other Dravidian languages, and is to be inferred as a whole in the pre-stages of some other Dravidian languages, this can only be a retention in the Nilgiris area—but it is a retention that is significant once the area has been defined otherwise. Old Kannaḍa had lost the triple contrast in the stops, the alveolar coalescing with the dental, but retained contrast in the trills; modern Kannaḍa has lost the latter contrast also. Badaga agrees with modern Kannaḍa, and the areal contrasts do not appear in Badaga.

Once this linguistic area (or microarea) has been established by the identification of structural traits—and I think it is now established, at least in a preliminary way—it may be bolstered by examination of lexical items. *DEDR* had included numerous lexical items from Toda and Kota which were found in these two languages and had no cognates elsewhere, as well as others which, though related to words in other Dravidian languages, showed peculiar developments of form or meaning in these two languages only; occasionally Badaga material was available to add to Toda and Kota. Zvelebil has now added to numerous such instances items from others of the Nilgiri languages, using his Irula material and Kapp's Kuṟumba material; Kapp has added more Kuṟumba items. Some examples illustrate this type of enquiry.

A fairly large group of etymologies identifies items of the Nilgiri flora. For Toda and Kota there are about a dozen etymologies for which we do not yet have counterparts in any other languages; e.g. Kota *kavḷ*, Toda *kafïṭ* 'bulb (edible) of *Ceropegia pusilla*' (*DEDR* 1343); Kota *kid̲*, Toda *kïd̲* '*Olea robusta*' (*DEDR* 1602); Kota polg '*Elaeagnus latifolia*', Toda *pïs̲x* '*Rhododendron*

arboreum', *pum bïsx* '*E. latifolia*' (*DEDR* 4553). Of wider areal interest are the Toda/Kota/Irula/Badaga etyma for the *Strobilanthes* ('conehead'), whose profuse blooming (in cycles ranging from six to eighteen years depending on the species) was observed by the Todas and remembered by the individual as a measure of his age (Rivers 1906: 415-16); outside the Nilgiris the common word is Tamil kuṟiñci or the like (*DEDR* 1849). The Nilgiri words are (*DEDR* 1154): Toda/Kota *kaṭ*, Badaga (recorded by Hockings) *kaṭṭe*, Ālu Kuṟumba *kaṭṭe*, Irula *ebbukaṭṭe*; for Ālu Kuṟumba *ebbukaṭṭe* is recorded as 'a profusely flowering kind of *Strobilanthes*'; in the Irula and Ālu Kuṟumba words *ebbu* is to be related to Kota *peb* 'a profuse flowering of *Strobilanthes*' (*DEDR* 4411), another Nilgiri areal etymology. Another areal etymology (*DEDR* 3377) for an item of flora concerns the tree *Meliosma pungens* (also *M. Wightii*) used ritually by the Todas (Rivers 1906: 433-5) and the Ālu Kuṟumbas (Kapp 1978b: 177): Ālu Kuṟumba *tūḍe*, Kota *tu·ṛ*, Toda *tï·ṛ*, Badaga *tu:ḍe* (as given by Hockings; Lushington's toḍe is incorrect).

Among other nouns than names of flora is the name of the bamboo flute (*DEDR* 4239): Kota *bugi·r*, Toda *puxury*, Badaga *buguri*, Irula *bugari, bugiriya*, Ālu Kuṟumba *buguri*, Pālu Kuṟumba *bugiri*.

A Nilgiri specialization of meaning is seen in words meaning 'waterfall' (*DEDR* 999): Kota *oyḷ*, Badaga *ole*, Toda *wasy*, Irula *uli*, Ālu Kuṟumba and Pālu Kuṟumba *oli*; the related words in other languages mean 'to flow' or 'river'.

In several etymologies Nilgiri languages agree on derivational material which is different from that found in other languages: (*DEDR* 546) Kota *i·ruv*, Toda *ü·ruf*, Irula (one dialect) *i·rvo*, Ālu Kuṟumba (one dialect) *i·ruvu* 'liver', with **-v-*, whereas Tamil/Malayalam and another Irula dialect have **īral*; (*DEDR* 533) Kota *i·p*, Toda *i·py*, Irula *i·ppi*, Pālu Kuṟumba and Ālu Kuṟumba *i·pi* 'a fly' have **-ppi*, while the other languages have only **ī* or this plus other suffixal material (e.g. Telugu *ĕ̄ga*, Brahui (*h*)*īlh*). In Kota *vayr*, Toda *pary*, Irula *bäri* 'roof', Ālu Kuṟumba *bari* 'thatched roof' (*DEDR* 5264), both meaning and formation show special development, since the basic verb **vari-* means 'to bind, tie' and Tamil uses the verb also in the meaning 'to fix as the reepers of a tiled roof' and has for 'reeper of roof' the derived nouns *variccal, variccu*.

That the foregoing account fails to mention dialects of the languages is because so little is known about the matter. Even though the Toda community is so small, the two moieties (*jātis*) which make up this 'caste' community were said by my informants to have slightly different dialects. A very small amount of data was collected bearing on the dialect of the *Töwfiṭy* moiety—untrustworthy data since my chief informants came from the other moiety, and the *Töwflṭy* moiety, and their dialect, are regarded as 'inferior'[8] (for this linguistic ranking of the two Toda sub-castes, cf. my remarks on p. 387 about language and community and also Rivers 1906: 681, 687).

The Kota community also, small as it is, probably has more than one

dialect. My informant belonged to *Kolme·l* village, but he gave me a very few differing items from other villages; G. Subbiah's informants belonged to *Aga·l* village (Kotagiri) and he recorded for the verb somewhat different forms from those recorded by me.

The large Badaga community has dialectal differences, differentiated probably by locality and subcaste, but there is little certain information at hand. Hockings (1980a: 11) suggests that there are six dialects.

Our best account of dialects so far is that given for Irula by Zvelebil (1973, 1979). His numerous data allowed him to state phonological differences, and his vocabularies record numerous dialectal forms.

The most interesting matter that has emerged so far is the nature of the Toda song language. It is different in many respects from everyday language. Many differences of detail are merely 'metrical'. However, the verb structure is really different (Emeneau 1979b). It has been established that in the song language the verb has a tenseless paradigm which is 'archaic' and very close in detail in part to the reconstructed past tense of the South Dravidian subfamily (as seen, e.g. in the Tamil past tense and the Kota present-future tense). Verb forms of this type are also put into the mouths of the gods in some old myths and legends and are used in the solemn language of assembly decisions. The song language also has two types of verbal adjective (unlike those of prose), which correspond in formation to Tamil and reconstructed Dravidian forms; these also have prose use in myths and in prayers. This is a fairly typical case of 'diglossia', in which different language forms are dictated by different 'social' contexts.

Linguistic recording and study began in the Nilgiris almost as soon as there was English penetration. A listing of the early attempts at vocabulary gathering is of no great interest and need not be given here. Henry Harkness in 1832, Bernhard Schmid in 1837, and Friedrich Metz in 1856-7 published remarks on the Toda language and vocabularies, especially the last named. Robert Caldwell in *A Comparative Grammar of the Dravidian or South-Indian Family of Languages*[9] included both Toda and Kota in the Dravidian family, using Metz's material for both languages. Caldwell also, in his second edition, made use of G.U. Pope's reworking of Metz's material, in the form of an outline grammar which was included in Marshall's volume on the Todas (1873). Relying on Pope, Caldwell judged Toda 'to have been originally old Canarese [Kannaḍa]'; on the basis of Metz's Kota material he judged Kota also to be 'more closely allied to the Canarese than to any other Dravidian idiom'. Badaga was early judged to be a dialect of Kannaḍa; e.g. Caldwell called it 'an ancient Canarese dialect'.

The Linguistic Survey of India Dravidian (and Munda) volume of 1906 (Grierson and Konow 1967) is no advance as regards the languages of the Nilgiris. The *Survey* did not collect material in the Madras Presidency. The editor contented himself, for the languages of the Nilgiris, with quoting from Caldwell; for Badaga he added a little material and a bibliography. More

searching work began in the 1930s. My own fieldwork in 1935-8 was concentrated on Toda and Kota, with some slight work on Badaga[10].

It is to be noted that the work of these five decades has changed the historical picture, and it is no longer possible to accept Caldwell's grouping of Toda and Kota with Kannaḍa.[11]

NOTES

1. For more elaborate statement, Emeneau (1974a: 114-15; 1980: 222).
2. Especially p. 73 above.
3. Throughout this chapter an asterisk preceding a linguistic form indicates that it is a reconstructed, hypothetical form of an earlier language stage. [But, for this suffix *-c-, see now Chapter XV above, the addition to fn. 1. —There is other evidence for a close relationship of Toda-Kota to Old Tamil. as e.g. in P.S. Subrahmanyam, 'Tense formation in Kota-Toda: a comparative study', *Studies in Dravidian and General Linguistics: A Festschrift for Bh. Krishnamurti*, 1991, pp. 49-72.]
4. These are identified and discussed below where there is treatment of the Nilgiris as a 'linguistic area'.
5. *DEDR*—Burrow and Emeneau *A Dravidian Etymological Dictionary*, 1984.
6. This has been discussed above; see fn. 4.
7. Definition from Emeneau 1956; 1980: 105-25.
8. See my account in *Toda Grammar and Texts*, Philadelphia; American Philosophical Society (Memoirs 155), 1984.
9. First edition, 1856, second edition, 1875, third edition, 1913.
10. Much publication followed, of which the most important were: *Kota Texts*, *UCPL* vols. 2 and 3, 1944-6; 'Toda, a Dravidian language', *Transactions of the Philological Society*, 1957: 15-66; *Toda Songs*, 1971; *Toda Grammar and Texts*, 1984; and the inclusion of much lexical material in T. Burrow and M.B. Emeneau, *A Dravidian Etymological Dictionary*, 1961, revised edition 1984; and M.B. Emeneau and T. Burrow, *Dravidian Borrowings from Indo-Aryan*, *UCPL*, vol. 26, 1962. Recent work on these two languages has resulted in S. Sakthivel's *Phonology of Toda with Vocabulary*, Annamalai University, Department of Linguistics Publication 41, 1976, and *A Grammar of the Toda Language*, Annamalai University, Department of Linguistics Publication 49, 1977; and G. Subbiah's Annamalai Ph.D. dissertation on Kota, 1973.
11. There has been important fieldwork in the 1960s and 1970s on the Irula and the Kuṛumba languages. Gérard F. Diffloth's University of California, Los Angeles, Ph.D. dissertation of 1968 on Irula has been followed by Kamil Zvelebil's two monographs (1973; 1979). Dieter Bernd Kapp's very extensive fieldwork on the Kuṛumba languages has been presented so far only in the papers listed in the bibliography, lexical material which he has allowed Zvelebil to publish in his etymological notes on Irula vocubulary items, and further lexical material supplied in the course of the writing of this chapter.

There has been some incidental fieldwork on Badaga (e.g. by Diffloth and K.V. Srinivasan), and a much more searching undertaking by C. Raichoor and P. Hockings (Hockings 1988).

CHAPTER XXIII

INDO-ARYAN ORIGIN OF GONDI *CUḌ(Ḍ)*- "SMALL"*

PROTO-DRAVIDIAN (PDr.) initial **c-* is represented in the Gondi dialects (*Voc.*, p. 77) by *s-* in the northern and western dialects, *h-* in the south and east, and zero (∅) in the farthest SE dialects, viz. Hill Maṛia and Koya. A few sporadic occurrences of *s-*, *h-*, ∅ outside of the dialect limits that would be 'regular' are probably evidence that the successive changes (**c-* > *s-* > *h-* > ∅) spread through the lexicon unevenly. This must be the explanation also of the retention of **c-* as the affricate *c-* in a few items in the Adilabad-Yeotmal dialect.

On the other hand, items which show retention of *c-* widely throughout the dialects (with very occasional occurrences of the expected changes) belong to two groups: (1) expressives, (2) borrowings from other languages, viz. Telugu, Indo-Aryan Marathi, Hindi, and Oriya, and Muṇda. Fuller discussion of these matters is undertaken elsewhere.[1] The second group includes the Gondi word for 'small, little, young(er)', *cuḍ(ḍ)*-, investigation of which requires such elaboration that separate presentation is desirable.

The most widespread words for 'small, little, young(er)' in the Gondi dialects are those found in *Voc.*, no. 1347,[2] with base *cuḍ(ḍ)*-. The forms in the northern and western dialects have initial *c-*, i.e. the palatal affricate, instead of *s-* which is the expected development of PDr. **c-* in these dialects: (Betul [Tr.]) *cuḍ(ḍ)ur, cuḍḍol,* (Mandla [W and Ph]) *cuḍur, cuḍor,* (Adilabad-Yeotmal) *cuḍur* ([ASu.] *cuḍḍūr, cuṛūr*). Initial *s-* (< **c-*) would be expected to show development to *h-* in the southern and eastern dialects of Chanda and northern Bastar (Muria), and then to zero in the farthest SE dialects (Hill Maṛia and Koya). The 'small' words show *h-* in Chanda ([D and G] *huḍla*) and the Muria dialect (*huḍila,* etc.); Danḍāmi Maṛia has both *cuḍla* and *huḍla*. Of the zero dialects, Hill Maṛia has *uḍila,* while Koya has unexpectedly *cuḍul*, with *c-* retained.

The basic form is *cuḍ(ḍ)*- with *r* and *l* derivative suffixes, which are not yet to be completely explained (though one may note the antonym, no. 1543, Adilabad-Yeotmal *ḍagur* 'big, great', ASu. *ḍaggūr*, with no known etymology). The suffix *-k*, which replaces *r* or *l,* is the plural suffix (Mandla [Ph] pl. *cuḍuhk*, Adilabad [ASu.] pl. *cuḍḍūk*, Danḍāmi Maṛia and Muria *huḍuk* 'few').

For *cuḍ(ḍ)*- there is no Dravidian etymology.

It has been suggested with a query (*Voc.*, s.v.) that the Gondi forms are

Indologica Taurinensia 14 (Colette Caillat Felicitations Volume), 195-99 (1987-88).

derived from Indo-Aryan. The notation is: "cf. Pkt. *chuḍḍa* small", which leads one to CDIAL 3712, Sanskrit *kṣudrá-* 'minute' AV., *kṣudraka-* 'small' Mn. The continuants of *kṣudra-* with few exceptions have initial *kh-*, e.g. Pali *khudda-*, Prakrit *khudda-*, *khuḍḍa-*, Bengali *khudiyā*, Assamese *khũd*. Most of the modern languages have only derivatives with specialized meanings (e.g. Bengali *khud*, Oriya *khuda* 'broken rice', Hindi *khũd* 'dregs, refuse'), forms with the general meaning 'small, little' being derived from other sources (CDIAL 4781 **cikka-*, e.g. Skt. *cikka-gaja-* 'young elephant', Prakrit *cikka-* 'small', Marathi *cikkar* id., CDIAL 5071 **chōṭṭa-*, only in modern Indo-Aryan, e.g. Hindi *choṭā*, Gujarati *choṭũ*, Bengali and Oriya *choṭa*; CDIAL 12732 *ślakṣṇá-*, e.g. Marathi *lahān*; cf. also some items like Marathi *thoḍā* in CDIAL 13720 *stōká-*).

The few forms from Skt. *kṣudra-* with initial *ch-* are Prakrit *chuḍḍa-*, which is quoted in *Voc.*, and Aśokan *chuda-*, *chudaka-* (= *chudda-*, *chuddaka-*), as found in the Girnar (Kathiawar) inscriptions (whereas Aśokan parallels elsewhere have *kh-*), plus one modern West Pahāṛi form with *ch-*. The Prakrit form is quoted from Sheth's dictionary; his reference is to the Jain *upāṅga* Aupapātika-sūtra (Uvavāiya-sutta), which, as the edition[3] shows, has in fact *chuḍḍiya-* 'a small bell used as an ornament', and that only in a rather less than authoritative addition found in several manuscripts. That this form is relevant is guaranteed by such Sanskrit equivalents as *kṣudrikā ghaṇṭā* and *kṣudraghaṇṭikā* (*ghaṇṭā-* 'bell'). More straightforward evidence is provided by the Aśokan forms, which occur with the meaning 'small' in contrast with words for 'great'.

The derivatives of *kṣudra-* present phonological problems, in that *kṣ-* is represented in the Middle Indo-Aryan (MIA) forms by either *kh-* or *ch-* and *-dr-* by either *-dd-* or *-ḍḍ-*. There is so much dialect mixture in all MIA and Modern Indo-Aryan (NIA) data that there is difficulty in attaining certainty of statement. However, two great Indo-Aryanists of this century, Jules Bloch and Sir Ralph (R.L.) Turner, have produced for *kṣ-* general statements which we may turn to. Bloch[4] finds on the basis of epigraphical and other evidence that *kṣ-* was represented by *kh-* in the eastern Prakrits and by *ch-* in those of the NW and west (cf. the Girnar Aśokan forms quoted above), and (p. 114) that Marathi and Gujarati in this respect were western. Turner[5] carries the matter historically somewhat further, but agrees with Bloch with regard to the statement just quoted. He adds that Ardhamāgadhī (the basic language of the Jain canon, that of the Aupapātika-sūtra form quoted above) had *ch* forms (for *kṣ*) "more common[ly]" than does Śaurasenī (which, the Prakrit prose of the dramas, is a *kh-* dialect), "but these may be due to the greater influence on Ardhamāgadhī of Māhārāṣṭrī [i.e. Jaina Māhārāṣṭrī, the dialect of the non-canonical Śvetāmbara Jain Prakrit texts]". This distribution of *ch-* and *kh-* from *kṣ-* would localize the IA origin of Gondi *cuḍḍ-*, if it is IA in origin, in the "western" part of the IA territory, i.e. in this instance in the Marathi area with which Gondi in part coincides.

On the other hand, no such neat geographical statement has been (or perhaps can be) made for *-dr-* > *-dd-* or *-ḍḍ-*. Bloch[6] makes the general statement that dental + *r* normally in NIA yields a dental except in Sindhi. Pischel[7] gives an extensive list of text references for MIA *kh*- derivatives of *kṣudra*-, which seems to show that the Jain Prakrits, including Jaina Māhārāṣṭrī, normally have *khuḍḍa*-[8] and that *khudda*- occurs in Pali and (only rarely) in Ardhamāgadhī. However, practically all the NIA derivatives show a dental resultant (whatever may be their meaning specializations). The NIA exceptions are the West Pahāṛi form *chuṛo* (already referred to as having *ch*-) and Singhalese *kuḍā* 'small' and *kuḍa*, *kuḍu* 'dust'[9]. The latter language has an alternative *kudu* 'small', which Turner (CDIAL, s.v. *kṣudrá*-) explains as 'Pa[li]" i.e. as derived from or influenced by Pali *khudda*-; Turner (CDIAL Addenda, no. 14421) lists *kudi* 'small' as the form in the Maldivian dialect of Singhalese. West Pahāṛi is a "western" language, and Singhalese is in many details "western"; the retroflex in their forms may be a "western" feature[10].

Although the Marathi record does not have a resultant of *kṣudra*- 'small', it is possible to surmise that in its territory there was once a form with the "western" *ch*- resultant of *kṣ*-, and with the *-ḍḍ-* resultant of *-dr-* that is attested for this word by the Jaina Māhārāṣṭrī forms in Pischel's list (*khuḍḍaya*-, *khuḍḍiyā*-), by the West Pahāṛi *chuṛo*, and the Singhalese *kuḍā*, *kuḍa*, *kuḍu*. I.e. we could reconstruct **chuḍḍa*- for the territory now occupied by Marathi. The Marathi records (as said above) do not have any evidence for such a form, but, if we are to find an Indo-Aryan origin for Gondi *cuḍ(ḍ)*-, this reconstruction would seem to be the only plausible one.

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NOTES

1. [In 'Proto-Dravidian **c*- and its developments', *JAOS* 108, pp. 239-68 (1988), Appendix II.]

2. This entry in *Voc.*, with its etymological note by the authors, was the stimulus for research into this problem. The abbreviations for the sources of Gondi dialect forms are those used in *Voc.* and DEDR.

3. Leumann, 1883.

4. 1915, p. 112, §104.

5. 1936; 1975, pp. 348-9.

6. 1915, p. 127, §120.

7. 1900, p. 202, §294.

8. On this form Jules Bloch (as translated by Alfred Master, 1965, p. 60) says: 'Pkt. *khuḍḍa-* from Skt. *kṣudra-* . . . this may have acted as in As. [i.e. Aśokan] *osuḍha-*', i.e. he assumes assimilation of dental to retroflex *ṣ*.

9. Geiger 1898-9, p. 199, no. 357; 1935, p. xxii, §21.

10. In the matter of *kṣ*>*ch*, Turner (1936; 1975, pp. 348-9) says: 'there is some evidence that the ancestor of Singhalese . . . was a *ch* language', with reference to Geiger's listing of *kh* and *ch* forms (1900, p. 42, §16). Geiger (*ibid.*) does not list the forms for 'small' with *k-*<*kh-*, although he lists them (1898-9, p. 199, no. 357; 1935, p. xxii, §21) in exemplifying the Singhalese alternate developments of *-dr-* as *d* and *ḍ*. Would it be going too far to suggest, on the basis of Turner's hypothesis, that the 'ancestor of Singhalese' must have had a form of the type **chuḍḍ-* and that *ch-* (which yields Singhalese *s-*) must have been replaced by *k-* under Pali influence? Buddhist Hybrid Sanskrit *cūḍa-*, Pali *cūḷa-* 'small' have been neglected in this discussion, since the vowel quantity makes connection of the Gondi forms improbable; as Turner says (CDIAL 4877 **culla-*[2] 'small'), derivation of *cūḍa-* from *kṣudra-* is ruled out (on phonetic grounds, by the initial *c-* rather than *ch-*).

TODA STUDIES

CHAPTER XXIV

OOTACAMUND IN THE NILGIRIS: SOME NOTES*

THE TOWN OF OOTACAMUND in the Nilgiri Hills in South India was a foundation of the English early in the 19th century. The hills are in fact a mountainous plateau, some 40 miles long by 15 miles broad, at the junction of the ranges of the Eastern and Western Ghats, and higher than either of the ranges at that point. The Nilgiri summits go over 8,000 feet, high above the plains to the north and east. The plateau is excessively rugged, composed of many small ranges and many peaks, with many steep, narrow valleys between them. The eastern and northeastern part of the plateau is in general some 1,000 to 1,500 feet lower than the remainder. Ootacamund is roughly in the middle of the plateau, just to the west of the short Doddabetta-Snowdon range which is part of the line of demarcation between the higher and lower levels and which in Doddabetta contains the highest of the Nilgiri peaks (some 8,640 feet).

From shortly after its foundation Ootacamund was the most important of the health-restoring and playground hill stations founded by the English in South India for the use of the governing classes of the Madras Presidency, Mysore State, and even more distant parts of South India. Since Independence also, it has retained some of its usefulness for some governmental activities and as a playground.

Its early history has been recorded in a number of books, especially H.B. Grigg (and others), *A Manual of the Nílagiri District in the Madras Presidency* (Madras, Government Press, 1880) and Sir Frederick Price, *Ootacamund, a History* (Madras, Government Press, 1908).[1] Both of these are based in part on early government files, government gazettes, and Madras journals, and probably there is little more to be gleaned from such sources. However, even yet, not everything that might be gained from aboriginal oral sources has been put on record. The present notes on several small points come from such sources and in one way or another supplement the large accounts. They are based on linguistic and ethnological fieldwork done on the Todas, one of the aboriginal communities, in the years 1935-38. What is presented here was recorded only incidentally to the chief interests, and it is evident that at some points inquiry was not pushed far enough. It is evident, too, that inquiry among the Badagas, another of the communities of the area, would add something—in fact, would solve completely the second point examined.

*JOAS 83.188-93 (1963).

The acquisition of the site of Ootacamund

After Wellesley's campaigns in Mysore, the newly annexed territories began to be explored by the Company's servants. The survey of the Coimbatore district, to which the Nilgiris belonged at that time, was begun in 1800. There was tentative penetration of the mountains on several occasions in the years following. The first effective ascent of the plateau, however, did not take place until early in 1819, but thereafter exploring parties became more and more frequent. The site which is now Ootacamund was first mentioned, spelled Wotokymand, in a letter published in March 1821 in the *Madras Courier* (so Price; Grigg says *Madras Gazette*), to the effect that a party, members not identified, had encamped there on the night of February 22nd. There is also the remark that this party was following the route taken by another party a year earlier in February 1820.

The name of John Sullivan, Collector (of revenue) at Coimbatore, is usually associated with the beginnings of Ootacamund as an English settlement—even as the 'discoverer' of the site. Price, in his examination of the documents with all their omissions and ambiguities, makes it probable that Sullivan's party of 1819 did not ascend to the high plateau, and that Sullivan did not visit the site until after April 1821. What is clear is that in 1822 the building of Sullivan's famous house, Stonehouse, on a western spur of Doddabetta, was under way, as well as his garden. It is in all probability this conspicuous building activity and Sullivan's persistent advocacy of Ootacamund as a sanatorium for Madras that, not unjustly, created the image of him as 'discoverer' as well as builder.

In any event, it was not only the English, but also the aborigines, or at least the Todas, who held this image. In May 1938 I recorded in English a story told by my informant-interpreter Kaṇfïsody, who had heard it from Piɨya'ɪ of the Kï'wïṛ patrilineal clan (Piliar in Rivers' genealogical table 52). Piɨya'ɪ was the monegar, or hereditary government-appointed headman. He was interested in telling the story because it provided the background for the initial appointment in his family. I give the story in much the same form in which it was told me, omitting some details, and especially the final ones which have to do with revenue payments.

Te'ty, Piɨya'ɪ's grandfather (Rivers: Teitchi), was building a new mund (=Toda village) and began to make preparations for the ceremony of giving salt to the buffaloes and its accompanying feast. He had to go to the plains for rice, salt, sugar, etc., to a place called Pe'ṭ.[2] As he and his companion were going down, they met Sullivan coming up. They asked with gestures, since they spoke no Tamil, where he was going, and said that they would carry loads for money. He promised money if they would carry him up the mountains. They made a stretcher with cloaks and brought him up. When they reached what is now Stonehouse Hill, he asked shelter in the Toda mund that was situated there. They gave it in a small tent. After a few days

he paid Te·ty three rupees and appointed him monegar. He asked all the Todas to be called and made with them an agreement for as much ground as could be covered by a sheepskin. Then he cut the skin round and round into a long strip as thin as hair. It was ten miles long. He measured ground with it and said that all this ground was his, and the Todas kept their agreement. Afterwards he started to build. Later he asked the Todas to leave the munds Patïṛ, Toštas̄, Taskïd̄, and one other.

Some minor annotations are in order. The office of monegar is treated by Rivers, pp. 555-56. He was doubtful whether it really started with Te·ty, but there can hardly be any doubt that the English created the office, in order to have someone with whom to deal. The holders of the office have been: Te·ty, his son Mutefïn (Rivers: Mutevan), and two of the latter's sons, successively Ïfyefïn (Rivers: Ivievan) and Piɬya·ṛ.

The site of Ootacamund was in pre-English days almost entirely occupied by the Ka·s̄ patrilineal clan. Their mund Ka·s̄ is one of the two munds that are still occupied within the municipal boundaries; for the other, which belongs to another clan, see below. The mund on Stonehouse Hill belonged to Ka·s̄ clan and was, and is, called variously Patïṛ, i.e. the Pat swamp (tïṛ), Patïṛmod̄, i.e. Patïṛ mund, or Patmod̄, i.e. the Pat mund. Accounts given to me varied as to whether it was a dwelling mund or the chief funeral mund for males of the clan. They are best reconciled by recognizing, as Kaṇfïs̄ody did, that the mund had both functions and that Sullivan's first occupation was of the site of the funeral mund. Other munds of this clan within the municipal limits were: Toštas̄, which was just below where St. Stephen's Church and the offices of the Collectorate now stand in the middle of the town; Taskïd̄, which was on the site of the convent in the southern part of the municipality; O·nmuṛy, which was probably on the high ridge in the south of the municipality near the Church of England Zenana Missionary Society buildings at Dunmere. Rivers (p. 651) mentions the first two (his spelling: Tashtars, Turskidt) and also two others (his spelling: Tüli, Keitaz) on Elk Hill, which were probably in the town. There may have been others, including Kos̄oɬ to the southwest of Ka·s̄. The Ka·s̄ clan seems not to have been too badly discommoded by this displacement. It still had munds to the south and the west of the town, and it certainly received compensation for those it gave up. In Rivers' day and again in mine the clan was flourishing.

The other mund that survived within the municipal limits was Meɬga·s̄, which is above the Public Gardens, on the slopes of the ridge above Stonehouse Hill, between Mts. Doddabetta and Snowdon, and is the chief mund of another clan, which is known as Meɬga·s̄. The Badagas call this mund Manjakkalmand (so Rivers) or Manjacamund̄ (so Price, p. 17). Price records an account given by a Badaga, who said that on Stonehouse Hill there was one Toda house and that the main mund, to which the one house belonged, was Meɬga·s̄ (Manjacamund̄). This must be incorrect. It contradicts not only the account that I was given, but also the related details about the name of

the Stonehouse Hill mund that are given in Price's chief account. Price surely did not know the clan affiliations of the various munds involved, or he would have paid no attention to this incorrect account. Grigg likewise (p. 6, fn. 3 and p. 380) placed the mund from which the town is named beside the Public Gardens, half a mile to the north of Stonehouse; this is the same confusion as that reported by Price.

Perhaps the chief point of interest in the story told me is that about the sheepskin and the tricky bargain. I have been unable to find this incident recorded anywhere in the accounts about Sullivan and the founding of the town. Grigg (pp. 329ff.) has an account in fairly general terms of the transactions in land at the beginning of Ootacamund, and does not know the story. Price (pp. 227 ff.) goes into great detail about the acquisition of various parcels of land and the compensation paid for them in the early years of the town, and has nothing like this. Sullivan himself did not mention such an incident in the various published letters and accounts of the beginnings of Ootacamund.

The story is, of course, recognized as that told by Vergil about Dido's acquisition of the site of Carthage. Consultation of Stith Thompson's *Motif-index of Folk-literature* (revised ed., Bloomington, 1957), K 185.1—deceptive land purchase: ox-hide measure, and the sources referred to there, yields very numerous narratives hinging on this piece of trickery. They are especially frequent in Europe, but Asia and even America yield instances. One of Thompson's references, Bolte's edition of Reinhold Köhler's *Kleinere Schriften* (vol. 2, pp. 319-21), leads to examples in India.[3] James Tod, *Annals and Antiquities of Rajasthan* (ed. by William Crooke; Oxford, 1920), pp. 1194-5 (reference to the 1st edition of 1829-32 is to vol. 2, p. 235), tells how Deoraj of the Bhatti line of Jaisalmer regained the fortune of his house by this stratagem. Crooke's note refers to other examples of this story in India, including one told of how a Mahadev Koli gained a Konkan fort by the stratagem in the 14th century (*Gazetteer of the Bombay Presidency* 13.1 [1882], p. 169). Crooke's remark that there are 'many others' is not helpful, since he gives no further references.

There may well have been an event of this sort at some point in history. It is hardly possible, however, that all the stories are of actual events, even though it is not beyond the realm of possibility that some of them may represent applications by ingenious rogues of a story that had been heard and had gained currency, e.g. Vergil's story in Europe. For no particular story will we usually be able to determine what it really represents—an event sprung from a fertile imagination, an event instigated by a story heard, or merely a piece of folklore thought apropos to a situation even though it had not happened in that situation. How is the story that I recorded to be interpreted? Sullivan hardly thought up the strategem independently. Did he adapt it from his memories (which I assume he retained from a classical education) of his reading of the first book of the Aeneid? If so, did an uneasy con-

science cause him to suppress all mention of the event, leaving it to be told by the Todas more than a century later? This is hardly credible, considering that, in the story as told by Piṯya·r, Sullivan and the Todas were badly handicapped in communicating with one another and arrival at an agreement of the kind in the story would have been difficult. It must be considered too that, even when we have allowed for all the omissions and uncertainties that Price found in the accounts of Sullivan's first travels in the Nilgiris, it remains most unlikely that Sullivan was not accompanied by companions, English or Indian, and that he could have suppressed all mention by them of such an extraordinary incident. I would conclude that the story is a folktale motif which reached the Todas either from some Indian source of the kind represented by Tod's story, or from some fairly recent European source, which would in fact be Vergil's story told them by some English narrator.[4] I would assume too that the attachment of the motif to Sullivan's founding of Ootacamund was made in recent decades (recent, that is, with reference to 1938), since no one before me had collected the story. That the story was unknown to my interpreter until Piṯya·r told it to him, and that it therefore was not told to me until the end of my three-year stay, is probably of little significance, since accident played so large a part both in determining what part of the tribal lore was known to my young interpreter, who was somewhat separated from tribal sources by his being a Christian convert,[5] and in determining how much of what he knew reached me.

The etymology of the name Ootacamund

That Ootacamund received its name from the Toda mund displaced on Stonehouse Hill by the building of Stonehouse has long been recognized, and moreover that the aboriginal name in question was the Badaga name of the mund rather than the Toda name. The missionary J. Friedrich Metz in *The Tribes Inhabiting the Neilgherry Hills* (2nd ed., Mangalore, 1864; a book made up of articles published in 1856 in the *Madras Christian Herald*, and also published in 1857 in German with the title *Die Volkstämme der Nilagiri's*), p. 6, made the derivation from the Badaga name. Grigg (p. 6, fn. 3) gave an unacceptable derivation of the Badaga word. Price has a long disquisition on the matter (pp. 14-7), and certainly, with the aid which he records having received from Miss Catherine F. Ling of the Church of England Zenana Missionary Society, he arrived at a correct solution, viz. that the Badaga name was the Badaga form of a Toda name and that no etymology of the proper name is possible.[6]

Rivers (pp. 15 f.) stated very clearly the general principles which determine why a Badaga name should have been involved; he did not deal with this name. The Badagas live in the Nilgiris in close symbiosis with the Todas (or did so until very recent times), but speak a Dravidian language which is very different from that of the Todas. Because of the aberrancies and difficulties of the

Toda language, few Badagas have spoken it, and the communications between the two communities have been conducted in the Badaga language. As a consequence, there came to be a Badaga name for every place which had a Toda name, as well as Badaga equivalents for most of the Toda words for Toda institutions. Outsiders have usually, in the beginning at least, communicated with the Todas through the Badagas, and most of the information gained about the Todas was in Badaga terms, including of course the names of the Toda munds. This is undoubtedly why at the very beginning the Toda mund on Stonehouse Hill was known by its Badaga name. It was a notable exception when Henry Harkness, *A Description of a Singular Aboriginal Race Inhabiting the Summit of the Neilgherry Hills* (London, 1832), p. 3, recorded the Toda name (as 'Pathk Morrt' = /patxmod̲/), without realizing that the English name for the locality represented the Badaga form of the Toda name.

On the Toda side, there are complications, in that nearly every place named by the Todas has, in addition to its ordinary name, a pair of names used in songs and in prayers. These are called /kwas̲m/, which I translate 'sacred name.'[7] At times it is possible to analyze these, but there are often difficulties of one sort of another.

For the mund on Stonehouse Hill the ordinary Toda name is now given as /patïr̲/, i.e. /pat/ + /tïr̲/ 'swamp', or /patmod̲/, i.e. / pat/ + /mod̲/ 'mund', or /patïr̲mod̲/. In these forms, /pat/ is the proper name. Ootacamund is still sometimes called by the Todas /patx/, though this is said to be obsolescent. Harkness and Miss Ling (apud Price, p. 16) give 'Pathk' and 'Patkh' as the name of the old mund. These must represent / patx/. The sacred names are: /naɬpatxar̲x, naɬpo·wnïs̲/. / naɬ/ in both means 'beautiful'. The first is /naɬ/+ /pat/ or /patx/ + /kar̲x/ 'grass for grazing', and the whole is probably to be interpreted as 'the beautiful grass at Pat (or Patx)'. It is to be noted that at least half a dozen place names and sacred names end in /kar̲x/. Moreover, there was emphasis in the earliest descriptions on the particularly lush grass on this hill, and this name seems very appropriate. The second sacred name contains /naɬ/ + /po·w/ 'dairy, especially one of peculiar sanctity or a conical one' +/nïs̲/ 'place'. It is uncertain whether this means 'place of the beautiful dairy' or whether /naɬpo·w/ was a proper name of the dairy of this mund; I have no information on its dairy or dairies in aboriginal days. It is uncertain, because of Toda morphophonemics, whether the first sacred name contains /pat/ or /patx/, since either would give the sacred name as it is said and recorded. In fact, it may be guessed that /patx/ was the original form and that /pat/ of the forms now given is due to a reinterpretation of the sandhi in the sacred name. There is one more complication in that my informant gave both /naɬpatxar̲x/ and /naɬpotxar̲x/, saying that the latter was meant for the town of Ootacamund, but that the first form was the proper one for the old mund. There is no word /pot/ or /potx/, and we must conclude that /pat(x)/ has become /pot(x)/, perhaps merely, as the informant said, to differentiate the two meanings.

One of the Badaga names given at present for the town is recorded as [^{h}wot^{h}eghe].[8] No phonemicization is yet possible with certainty; I should guess /hotege/, on the supposition that the spelling [^{h}wo] represents phonetically an initial /h/ followed by a diphthongal allophone of /o/, viz. [wo], or an initial voiceless w followed by [o], but that in either case /ho/ is the phonemicization to be adopted. This I interpret as the Badaga equivalent of Toda /patx/. The equivalences of the various consonantal phonemes are all regular (h = p, t = t, g = x). Some doubt remains about Badaga o = Toda a; is it possible that Toda o of /potx/ is really in point here? The vowels of the non-initial Badaga syllables would have regularly disappeared in Toda. The spellings of the Badaga name applied to the town have been chaotic: Wotokymand (in the name's first appearance in 1821), Wuttacamund, Whotokaymund, Whotakaymund (1822), Oatacamund and Wotaycamund (Harkness, 1832), Whatakaimand (Grigg, p. 6, fn. 3), Wootaycamund and Wotay (Richard Burton, *Goa and the Blue Mountains*, London, 1851).[9] It is notable that English *wh-* was used several times, corresponding to the recording given here. The element *mand* or *mund* is the Badaga /mandu/, which is correct as the equivalent of Toda /mo$\underline{d}$/; see *A Dravidian Etymological Dictionary*, entry 3913. As early as 1821 (according to Price, p. 15) the name appeared as Ootacamund and this soon became the normal spelling (even for Burton, whose other spelling seems a freak at that date); *oo* represents English [uw]. Ooty became the normal abbreviation.[10]

Modern Toda names of Ootacamund

At the present time ordinary, conversational Toda reference to Ootacamund is made by the word /poz̤o·rm/ 'bazaar' or /poz̤o·rmdï$\underline{r}$/ 'the bazaar swamp,' i.e. the swamp where the bazaar is. This swamp is the swampy ground through which originally flowed the stream coming down through the Public Gardens past Stonehouse Hill. This stream was dammed further down, and by 1825 a twisting lake about two miles long was formed, which has ever since been a prominent feature of the town. Boats were soon used on the lake, in 1884-85 a boat club was founded, and from 1887 to 1900 there were regattas twice a year. Later the upper portion of the lake silted up, including that part fronting on the bazaar, and in time the lake's length was reduced to about half. The reclaimed upper portion was the site of a racecourse in the first half of the 20th century.

Reference is made in Toda songs to Ootacamund, sometimes by the sacred names of the old mund Patï$\underline{r}$, sometimes by the sacred names of the old mund Toštas, which are /o·štas, o·$\underline{r}$xwï·ṛ/ or /too·štas, too·$\underline{r}$xwï·ṛ/. Sometimes a pair of phrases is used (as of 1935-38) which refer not to places but to the institutions of the English, viz. /öw xoce·ry, öw xopol/. The first means 'seven, i.e. many, lawcourts'; the word /koce·ry/ is the Anglo-Indian *cutchery*, borrowed from Hindi *kacahrī*. The second was obscure to my informant-

interpreter. He knew that /kopol/ was a word for 'boat' (Tamil *kappal* and the other items in *DED* 1022), but 'seven boats' seemed to be nonsensical, and he ended by suggesting that /kopol/ in this phrase meant the same as /koce·ry/. Of course, 'seven, i.e. many boats' are those on the lake, perhaps at regattas. The Todas were always avid attendants at English sporting events, including horse races and the Ootacamund Hunt point-to-point race meet, at which from 1936 for some years they were provided with an event of their own, a mile-and-a-quarter cross-country foot race.[11] The boats at regattas, then, are the most probable reference for /öw xopol/. The most interesting point, linguistically, is the unexpected reinterpretation of /kopol/ as equal to /koce·ry/ 'lawcourt', when the regattas had faded, or were fast fading, from Toda tribal memory.

NOTES

1. On the Todas, the chief authority is W. H. R. Rivers, *The Todas* (London, 1906). On the Toda language, including something on the phonetics, see Emeneau, "Toda, a Dravidian language", *TPS* 1957. 15-66.

2. Pe·ṭ is the word for 'market town', for which see Emeneau and Burrow, *Dravidian Borrowings from Indo-Aryan* (University of California Publications in Linguistics, vol. 26; 1962), entry 276. The town meant may possibly be Mettupalayam. The companion of the next sentence was one of the two males of the first generation in Rivers' genealogical table 54 (spelled by him Piduli and Parsnolv). I did not obtain the name because of the taboo on names of the dead (Rivers, p. 462) and my failure to push the matter further with informants who might have known the names and been unaffected by the taboo.

2. Not explored by Thompson either in *The Oral Tales of India* (Bloomington, 1958) or in *Types of Indic Oral Tales* (Helsinki, 1960).

4. That such a source of Indic tribal folktales is to be taken into account is clear from my earlier demonstration in the case of the Kotas of the Nilgiris; see *Kota Texts, Part* 1 (University of California Publications in Linguistics, vol. 2, no. 1; 1944), pp. 10-11.

5. For Kaṇfīsody's personal history, see my paper "The Christian Todas", *Proceedings of the American Philosophical Society* 81 (1939). 93-106.

6. Certainly not that recorded by Grigg on the basis of the Badaga word alone. To anticipate, Price was told by an old Toda that the Toda mund name /patx/ means 'a level spot'. Miss Ling did not know such a Toda common noun, nor do I. Miss Ling further remarked that the Toda word with this meaning is "ârdo", her defective spelling for /o·ḍ/ 'level ground', which I recorded. This last word is a Toda borrowing from Badaga /ha·ḍa/ 'open, grassy ground in village'; these words must be added to *A Dravidian Etymological Dictionary*, entry 3346, Ma. pāṭam 'range (esp. of rice-fields), rice-land', Ko. pa·ṛm 'level ground'. For the name /patx/ I can find no etymology.

7. On these, see various of my publications, including especially "The songs of the Todas", *Proceedings of the American Philosophical Society* 77 (1937). 543-60, and "Personal names of the Todas", *American Anthropologist* 40 (1938). 205-23.

8. I owe this information to Paul Hockings, who is dc ing ethnological fieldwork among the Badagas; [he now spells it Hotege]. He was unable to get the Badaga name for the Stonehouse mund.

9. Grigg (p. 285) in quoting from a document of 1821 or 1822 spells 'Whotakary', which, however, is to be ignored as a misprint, since in the document as given in full in the appendix (p. lxii) the spelling is 'Whotakay'.

10. Owing to the kindness of Dr. G. S. Gai, Government Epigraphist for India, Ootacamund, I have a reference to *Annual Report on South Indian Epigraphy for 1910*, 101-2. In this it was suggested that a village Oṭṭaikkuminḍān (in the Koṅgu-maṇḍala, i.e. Coimbatore district) which was mentioned in a grant of the reign of Baḷḷāḷa III (Hoysala), is to be identified with Ootacamund. Phonologically, however, this appears improbable because of the retroflex ṭṭ, which does not correspond to the dental in the Badaga and Toda names.

11. See my paper "Toda culture thirty-five years after", *Annals of the Bhandarkar Oriental Research Institute* 19 (1938). 101-21, esp. 110.

CHAPTER XXV

TODA DREAM SONGS*

THE SONGS AND ORAL SINGING technique of the Todas in the Nilgiri mountains of South India were reported in 1937 and again in 1958.[1] During the period 1935-38 a corpus of 260 songs was transcribed at dictation, tape-recorders not yet being known.[2] Of these, twelve had been dreamed. This sub-corpus is interesting in several ways, and some of the questions that arise are discussed here, especially the relations of the dreamed songs to those of the rest of the corpus, the content of the dreamed songs, and the relations of the dreamers to the persons and events dreamed about.

None of these songs was dictated immediately after the event. An absolute or certain chronology is difficult to establish, as it is for a majority of the songs in my record. Song 178 belongs to the late 20's or early 30's; songs 173, 174, 183, 184 belong to the late 20's, with a possibility that 173 and 174 were slightly earlier; song 175 belongs perhaps to the 20's, perhaps earlier; songs 176, 177, 180, 181, 182 are prior to Rivers, i.e. prior to 1901-02; song 179 is much older, since the singers in it were grandfathers of the man who is the first generation in Rivers's genealogical table 22. It is evident that these songs, like any notable songs, are handed down indistinguishably from any other part of the corpus of the song tradition and technique.

My chief informants on songs in general were Ke·noẓ and Kaṇfïsody, both composers themselves, the former being an older man than the latter, and the latter speaking enough English to translate and interpret. My record concerning who dictated which song is not complete, unfortunately. It is probable that most of the dream songs were dictated by Ke·noẓ and interpreted by Kaṇfïsody.

Of the twelve songs two were certainly dreamed by prolific composers, 184 by Ke·noẓ himself, 178 by Pïswï·; the latter song was dictated by Ke·noẓ. For songs 175 (? the 20's) and 177 (before Rivers) the dreamers were not remembered; it is not known, then, whether they were otherwise composers or not. The case is similar for 179, the very old song; the dreamer is identifiable only by his generation, and I have no information as to whether or not he was a composer. The dreamers of 176 and 183 do not otherwise appear in my record, and the presumption is that they were not prolific composers. 173 and 174 are a peculiar case, which must be discussed at more length later. For the moment it is enough to say that the dreamer of 173 figures in the record as the composer of song 145, but she was characterized as 'not a

*JAOS 85. 39-44 (1965).

composer', i.e. not a prolific composer. The dreamer of 174 figures in the record as composing song 114 along with her sister, neither of these sisters appearing otherwise in the record as composers. Finally, and it seems extraordinarily, 181 and 182 were dreamed by the same woman; this was before Rivers's time, and the quite separate events of the two dreams do not admit of even a relative chronology. Wï·ź, the dreamer, is not recorded otherwise as a composer. The negative part of my record, i.e. the statements that a dreamer was not otherwise a composer, or that only one other song by that person is in the record, may not be very significant, but in the following discussion I shall attempt to give it its proper value.

In an earlier discussion of Toda songs in general, it was said that this oral literature, like some others, is based on a technique which includes a phraseology that is stereotyped and repetitious, though very ample, and standard themes. One of the corollaries of such a technique, wherever and whenever found, seems to be that no two renditions of the same song are identical, unless some other factor foreign to the technique interferes to standardize a text. The circumstances of each rendition are different and make for different lengths, different thematic emphases, and different phraseology when a choice is possible. In fact, in my Toda record, there are very great differences between different dictations of the same song, so great that to the outsider like myself it is in some instances uncertain when the intention of the informant was really what it purported to be, i.e. to dictate the same song.

Another feature of Toda song that was pointed out in the earlier discussions is that the technique is familiar to all Todas, to the extent that all Todas seem to be able to compose, or at least, to be able to participate in the rendition, either in chorus or antiphonally, when someone else composes.

It is not difficult, then, to admit that any Toda, even one who is not a 'regular' or prolific composer, could dream a song, if the song is one in the regular technique (as all those in my record are), nor should one be surprised if someone like Wï·ź, who is not a regular or prolific composer, should dream two songs. The fact that all Todas are familiar with the technique, whether they compose prolifically or not, really makes my analysis of the dream songs with reference to their composers almost irrelevant. This statement indeed is predicated upon the observation that in all the texts, as I recorded them, the technique is handled equally well. This, I suspect, is very misleading, since all twelve were dictated by expert composers, and there may well have been gross inequalities in the quality of the songs when they were first sung by the dreamers after waking up.

It is very difficult indeed to be sure how close my record is to what was actually dreamed. One might innocently suppose that when Ke·noź dictated a song that he had dreamed, his dictation would be the *verba ipsissima* of his dream. I do not, however, for a moment suppose that this is so. When in another part of the corpus his two dictations of the same song (not dreamed) were very unlike one another, it is not to be assumed that his dream and a

later dictation of it, later by about ten years, should coincide exactly in words. The corollary that no two renditions of the same song are identical, forbids such coincidence. To put it in terms of what actually happened—Ke·noẓ dreamed a song, and undoubtedly next morning sang it to his own family, if to no one else. As a composer, he was more than likely tempted to expand what he remembered of the dream, to make it better—though this is not at all the way that a Toda would talk about it. He must have repeated it many times thereafter, more often while the experience was fresh, less often as time went on. In accordance with the corollary principle, no two repetitions were the same. By the time he dictated it to me ten years later, the song may have had little detailed relation, or even possibly little thematic relation, to what had been dreamed.

The same considerations apply to all the other dream songs, with the added factor that in no other instance was the song dictated to me by the dreamer. For most of these songs more time had elapsed between the event and the dictation than in the case of Ke·noẓ's song, with the consequent possibility of more change. The oldest one (179) is of a type called po·ṭ, the chief differentiating feature of which is a special type of tune. About this type I was told that there should never be any verbal change. In spite of this prohibition, I discovered on another occasion, on recording the same po·ṭ twice, that considerable changes had been made. It is, therefore, not even to be assumed that the dream po·ṭ had not suffered extensive change over the generations.

Given all this skeptical qualification, I conclude that it is in the highest degree unlikely that any of the songs in this small sub-corpus is very like what was dreamed. Nevertheless, my experience of the remainder of the corpus leads me to think that the themes and constructions of the songs may well approximate fairly closely to what was dreamed. One feature of two of the songs (182, 183) tends to substantiate this, namely, that the dreamer woke up before the song was finished and that in the transmission and the dictation no attempt was made to complete the incomplete songs.

At this point there must be presented the very curious case of songs 173 and 174, which were reported as dreamed by two different women. In both dreams the same two men, recently dead, were sitting and singing together. The two men were at the times of their deaths sexual partners (in the lover-concubine relationship), each of one of the women. At the time of the dreams one of the women, Tarmi·ẓ by name, was about to be married to another man. The two songs were in part similar even in phraseology. They were alike in dwelling on the nostalgia of the dead men for tribal affairs, especially their activities as dairy-priests and at funeral ceremonies. One of the songs (173) also touched on Tarmi·ẓ's coming marriage and her leaving the mund where she had lived with one of the singers while he was alive. The song that contained this section about Tarmi·ẓ was not the one that was said to be dreamed by Tarmi·ẓ. At the time when the two songs were dreamed, the two

women were staying at the same mund, that of their dead lovers. That there should have been two almost identical songs dreamed by these two women at the same period, seems incredible. I have concluded that in all probability there was only one actual dream and that my record contains two versions of the same song, the better being that containing the material about Tarmi·ʒ. It is even possible to guess that since Tarmi·ʒ's affairs are part of the song, she, rather than the other woman, was the actual dreamer.

Incidentally, the fact that several women have been mentioned as dreamers of songs should not give the impression that women predominate as dreamers in the corpus. For two songs (175, 177) the dreamers are unknown, as was said before. Of the remaining ten, six were dreamed by men and four by women. In fact, only three women were involved, since Wï·ʒ dreamed two songs, and if my guess about Tarmi·ʒ and her companion is correct, the number of women is cut down by one more. But perhaps it is methodologically wrong to lay any stress at all on the sexual make-up of such a small list of dreamers.

It would be pleasing no doubt to the psychoanalyst or the psychoanalytically inclined ethnologist to find that these dream songs were packed full of Freudian symbolism. The Todas do indeed have dreams of outright erotic content. Song 150 was sung by the two men Ke·noz and Mo·ronïs, after they had had dreams in which their current mistresses came and had intercourse with them. And there is also in the songs in general some fixed phraseology of erotic and symbolically erotic content.

But the dream songs have nothing of this. In all the songs of this subcorpus the singers are persons recently dead. In each of the seven songs 173 to 179 the singers are two dead men, in 180 two dead women. In each of the two songs 182 and 183 a dead woman sings, in 184 a dead man. In 181 Wï·ʒ, who has already been seen to be notable as a dreamer of songs, showed herself particularly imaginative in that she dreamed that she herself was singing with a woman recently dead. She woke up frightened, very naturally, since the dead woman, who was the leader in the song, included Wï·ʒ with herself in statements that implied that Wï·ʒ too was dead. Ke·noz also in 184 dreamed that the singer and himself were in a sense implicated with one another; the dead man, who was a relative of Ke·noʒ's, sang that he could not, being dead, support Ke·noʒ in a quarrel that was then going on. But apart from these two songs, the dead persons and the dreamers do not verbally impinge on each other's affairs.

The dead men who sing in the dreams, in most of the songs rehearse the tribal activities in which they can no longer take part. Nostalgia is at times explicit: "we cannot go to the crowd of Ö·n, the god of the dead; we are looking at the crowd of Tö·kiṣy, the goddess of the living"; "we are shedding tears because of a remembrance of this world, of the way on which we walked; we are shedding tears because of a thought of this world, of the path on which we went." In 173 and 174 Arsxwï·ṛ and O·škwï·ṛ, who belonged to the Töwfiɬy

moiety, which provides dairy-priests for the highest ranking dairies of the other moiety, sang of their former priestly activities, as well as of their prowess in catching buffaloes at funerals of the other moiety. In 175 Ki·θymuṛy and Pa·ṇxwï·ṛ of the To·ṛo·ṛ clan sang of the activities of their mund and of how they could not go to show prowess at the funerals of the Töwfiɬy moiety. In 177 O·kfïn and Ke·nïs̲ of the Töwfiɬy moiety sat on a mountain watching a funeral of the other moiety and sang that they could not go to it and show prowess. In 176 Kö·ṛnïs̲fïn and Ne·s̲yxö·ṛ sang of the prosperity of their life at Kafi·θy mund in the Wainad district near the plains. In 178 Töwθwï· and Te·θyxe·n of the To·ṛo·ṛ clan sang of how they were prevented by the messenger of death from helping in the rebuilding of the kogfoɬy dairy of their mund, which was going on at the time of the dream. In 179, the oldest song, two brothers sang of how they had quarreled and driven their buffaloes separately on migration to fresh pasturage, and then of how they had died suddenly and their funerals were held together, both being carried on the same bier and burned on the same pyre, and the song ended with them saying in detail how they would go on the path with their buffaloes to the world of the dead. All of these songs contain thematic material and phraseology that occur again and again in the laments for persons who have just died and in other occasional songs, e.g. those that describe quarrels. What is different is that in the laments others say of the dead: "he was good at catching buffaloes at funerals", "he was a priest seven times", "he died", "they caught and killed buffalo Na·s̲um for him", etc., etc. with a 3rd personal reference, while in the dream songs the dead say "we were good at catching buffaloes at funerals", "we were priests seven times", "we died", "they caught and killed buffalo Na·s̲um for us", etc., etc. with a 1st personal reference.

Since in all the seven songs just sketched the same themes recur, a realistic analysis of the stuff of Toda songs will contain in its account of funeral themes two subdivisions with the same phraseological content, one subdivision which is used in laments for the dead, the other subdivision which is used when the dead man in a dream sings. It is as if the technique determines what the content of dreams will be—though to say this is really to mix up badly what is cause and what effect. But it is not too far wrong. The content of this major part of the dream corpus demonstrates how deeply songs and the song technique are a part of the culture. I have said in earlier discussion that no important event in the culture is unaccompanied by song. So deep-rooted is this adhesion of a patterned verbal accompaniment to activity, that it even manifests itself in the subliminal part of activity, not as a mere superficial frill upon the surface of activity, but as an essential element of activity which manifests itself even when the subconscious has taken charge.

A theme which occurs in the dream songs in which dead women sing, is the dead woman's jealousy of the new wife that the widower is proposing to marry. It was recorded twice, in 180 and 182. The phraseology recurs in song 138, in which a wife who had born daughters but no son, lamented that her

husband intended to divorce her and marry another wife. The divorce did not in fact take place and it seems that a case of polygyny resulted. Otherwise, divorce does not figure at all in my corpus of songs. But the theme with its special phraseology is clearly identifiable in song 138, and it is this phraseology that appears in the two dream songs. In 180 two dead women, Sinmi·r and Pe·rgfiɨy, sing: "They are marrying new wives there; they are owning new buffaloes there (as dowries). They are making us to be wives who do not belong to them; they are making the buffaloes (that came with us as dowries) not to belong to them. (The new wives) are becoming persons (equal) to the former persons; (the new buffaloes) are becoming buffaloes (equal) to the former buffaloes." The dowries would be returnable in the case of divorce, but not in the case of death—which identifies the situation in which the phraseology is originally relevant. The jealousy in the situation is not as explicit as it is in the longer passage in 182. Wï·ẓ dreamed that the dead Nwï·ṭṇi·r sang about her husband Peɼpa·w's intention of marrying Pu·fi·ẓfiɨy: "He has come to act as if I were foolish [a reason for divorce]. He is marrying a new wife there; he is owning new buffaloes there. He has made me to be a wife who does not belong to him; he has made the buffaloes (that came with me as dowry) not to belong to him." And then in direct address to him, she sang in detail for nine verses: the funeral that is being made for me, I shall make to be your funeral. This is clearly jealousy. Again, it is not possible to escape the conclusion that this thematic pattern is deep in the sub-conscious, and as it were, provided for dreams.

In song 181 the dead woman Teɼfiɨy sang that her husband Te·d̲nïs̲ was marrying Perams, who was born in the other moiety. Such a marriage went against the rules, but Te·d̲nïs̲ was following the example of his brother, the powerful Kwï·s̲yaɨf, who had innovated in this way and had initiated a train of similar 'marriages'. Teɼfiɨy sang, not with explicit jealousy, but with a warning that the infraction of the rules would bring misfortune.

The chief remaining themes in the dream songs occur only once each (it is accident presumably that they do not occur more often), and are consequently not so impressive as are those that occur more than once. One of them, Moθïli·ẓ's lament in 183 that she is leaving her newborn child because of her death soon after childbirth, seems as if it might be peculiar to the dream songs, since it does not occur as such anywhere else in the total corpus. However, the phraseology is basically all found in other thematic contexts: "The child that I bore is crying. I do not see anyone at all who will carry the crying child. . . . The child that I bore has become an orphan. My sister is going to her mund, carrying my child. I am sitting on the other side of the stone. I cannot carry the crying child. . . . I am sitting, forsaking my child." I feel sure that this particular combination might well occur in a lament for such a dead mother; the corpus happens not to contain one.

Song 184, Ke·noẓ's dream about his relative Te·pax's song, was engrossed with Ke·noẓ's own affairs and had little in it that was explicitly dictated by

its being a dream, except Te·pax's statement that he could not help Ke·noẓ in the quarrel in which the latter was involved, and even this may well occur in a waking situation.

A final point to be made is that in several instances it can be demonstrated that the dreamer is somehow connected with the person or persons of whom he dreamed and with the subject of the song. As we should expect, some interest or anxiety or the like dictates the subject-matter of the dreamed song. It was noted already that in 173 and 174 the two women dreamers were connected with the two men in the dreams in the lover-concubine relationship (or a variation of it); the problem, discussed above, of whether only one of the women was in fact the dreamer, does not lessen or change the point. It was also noted already that Ke·noẓ's dream (184) reflects his anxiety about his own affairs; it follows that this determined the identity of the dead man that he dreamed about, i.e. his relative who, when alive, could have helped him.

The connection of dreamer and person dreamed about is very clear in 183: Moθïli·ẓ, who sang in the dream about her distress at leaving behind her new baby, had a sister Eẓag, who took the child and cared for it; it was Eẓag's husband Ö·noẓ who dreamed the song (in which he is not mentioned). It seems probable that for 179 we can determine that the dreamer, who was a 'son' (whether real or classificatory is unknown) of the two dead men who sang, was motivated by his relationship to them and the conventional mourning pollution in which he was involved until their second funeral had taken place. It would be interesting to determine what motivated Wï·ẓ's two dreams, but there seems to be nothing in the record that is relevant, except that for 181 it should be noted that Perams, whom the widower was intending to marry, had been born in the No·ṣ clan, into which Wï·ẓ was married. This is very tenuous, though Te·d̲nïs̲'s proposal to 'marry' Perams in an illegal way undoubtedly made a big stir and Wï·ẓ, whom we have seen to be imaginative, may have needed no more stimulant than this for this dream. For 182, her other dream, I cannot find even as much as for 181. In 176 Tüɬynïs̲ dreamed that Kö·r̲nïs̲fïn and Ne·s̲yxö·r̲ sang. Tüɬynïs̲'s sister Sini·r had at one time been Kö·r̲nïsfïn's wife. This may have produced enough intimacy between the two men to motivate the dream. For 178 and 180 it is impossible to determine what the connection was; for 175 and 177 the dreamers were not known and there are consequently no data at all to build on.

To sum up—perhaps the most interesting general features of these dream songs are that they are all sung by dead persons, that they are all in a verbal technique indistinguishable, in my record at least, from that of the songs sung by the living, and that they contain a few recurrent themes that, closely related though they are to themes in the songs of the living, yet are developed into a form appropriate to utterances by the dead, as if the song technique belonged both to the living and to the dead—which of course reveals a parti-

cular Toda attitude to the dead, as merely Todas in another state, who, debarred from active participation in some Toda activities, yet feel Toda sentiments and express them by the Toda means for expressing sentiments, i.e. by composing songs.

NOTES

1. "The songs of the Todas", *Proceedings of the American Philosophical Society* 77 (1937), 543-60; "Oral poets of South India—the Todas", *Journal of American Folklore* 71 (1958), 312-24. For the Todas in general, see especially W. H. R. Rivers, *The Todas* (London, 1906), for which the fieldwork was done in 1901-02.

2. The corpus is being prepared for publication, with text, translation, commentary, and introductory treatment of general questions that arise. [Published as *Toda Songs* (Oxford, 1971).] In this paper songs are identified by the serial numbers that they will have in the publication. The dream songs are numbered 173 to 184.

Chapter XXVI

TODA VERBAL ART AND SANSKRITIZATION*

The Todas, who live on the Nilgiri mountain plateau of Madras, separated, as I think I have demonstrated,[1] from pre-Tamil speakers at least two millennia ago and have been isolated geographically from the main currents of Indian life for at least that length of time. Their lines of communication with that life have been so thin that it would be futile to expect to find much detailed parallelism with it.

Diffusion of traits from the Hindu culture of South India has taken place in the last century or more, but in the 30s of this century it was difficult to find much acculturation,[2] and I came to the conclusion that Toda culture patterns were so peculiarly and rigidly structured that there was little expectation of much change from this outside source, short of total or almost total disintegration of Toda culture as such. The type of diffusion that has recently been identified by the term 'Sanskritization'[3] is hardly to be looked for in Toda culture as described by Rivers or by myself. This is not to say that some important traits of the Todas' cultural structure are not Sanskritic. One can point for example to the hierarchical organization of their two moieties (or jātis) and the pollution attitudes connected with the relationship between the moieties, their place in a local caste-like structure, their general vegetarianism and their secretive attitude towards the meat-eating at their buffalo-calf sacrifice, their women's debarment from most religious ceremonial, the necessity to keep non-Todas at a distance from ceremonial, etc., etc.; even their word töw 'god' is derived ultimately from Sanskrit.[4] But it must be postulated that these traits are so old in the Nilgiris that we must conclude either that the Todas possessed them when they first appeared there, or that, if they are in part the result of diffusion from outside sources, diffusion took place so long ago that it will never be possible to identify which traits are the result of diffusion and which are inherited from the proto-Todas.

Toda mythology and Toda poetry have turned out, when adequately reported,[5] to be markedly peculiar and, in fact, to deserve the much-abused characterization 'unique'. It would hardly be expected that we should find in them much that would link them, on the one hand, with the theology and mythology of Hinduism, and, on the other, with Sanskrit and Sanskritic poetry. And yet a few strikingly similar detailed traits have been found.

Among the poetical conventions (kavi-samaya) of Sanskrit poetry, it is well-known that laughter and smiles are white, as is also fame. It is hardly

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necessary to illustrate this for Sanskritists, but an example or two will clarify it for others. Late poets are very fond of using the samayas, and Kṣemendra (11th century) is no exception. In the Vetālapañcaviṃśati section of his Bṛhatkathāmañjarī, he uses the convention four times, twice of loud laughter, twice of smiles, in rather complicated, ornate passages, and twice combined with the other convention, that about fame. Two of the passages are as follows:[6]

ity urvīvalaye tuṣārakiraṇaspaṣṭāṭṭahāsacchaviḥ . . . kīrtir babhau. (Vet. (25.12 = BKM 9.1221) 'Thus his fame shone in the earth's circuit, having the (white) colour of the cool-rayed moon and of clear, loud laughter . . .'

nirjharasmerahārāṅkaṃ . . . bhūbhṛtāṃ dhuryaṃ . . . (Vet. 16.16 = BKM 9.780) '(He went to a mountain), the most excellent of mountains which, ornamented with a curved necklace of smile-like (i.e. white) cascades, was like the most excellent of beings, ornamented with a curving necklace . . .'

One of the Toda songs[7] has to do with the destruction of most of the members of a clan because of the sacrilegious slaughter of a buffalo. The dead bodies were stripped by vultures and worms, and the bones lay scattered about. Two versions of the song were transcribed. One (3a) says in vs. 14: eɨ̣(f) fiɨ̣cxwïθ 'the bones are shouting for joy', which was interpreted as meaning: 'the bones are lying white all over the place'. The other version has (3b.13): oɨ̣n gaɾ̲sfiš̲ky 'the bones have laughed', with the same interpretation. In both versions there precedes a statement that the worms that eat dead bodies are shouting for joy: (3a.13) weˑṛn biɨ̣cxwïθ, (3b.12) weˑṛn biɨ̣cfiš̲ky. It is clear that the verb piɨ̣y- 'to shout for joy', which is applied to the bones in 3a.14, is a transfer from the original application to the worms in 3a.12. However, it is a reasonable shift, substituting joyful, noisy laughter for laughter which is not further particularized. The equation 'laughter' = 'whiteness' was well understood by my informants in both versions, even though the passages contained no morpheme meaning 'white'. The verbal morphemes ('to laugh', 'to shout for joy') are metaphorically used with the meaning 'to be white'. This is a striking parallel to the Sanskrit poetic convention illustrated.

The second parallel involves the Sanskrit poetic convention that moonlight is cooling, whether pleasantly so in the hot weather, or less pleasantly in the cold weather. I need refer only to Kṣemendra's identification of the moon by the compound tuṣārakiraṇa- 'the cool-rayed one' or Kālidāsa's himāṃśu- (Śak. i.19). In one Toda song (200.5) a beautiful woman was referred to as: to(ṇ) ṇeɾ̲of, toṇ muˑf 'cool moonlight, cool buffalo Muˑf (= cool moon)'[8]. It is a little difficult to understand why, in the cold Nilgiris, the 'coolness' of the moon should be pleasing, so that a beautiful woman should be riddlingly referred to by the metaphor of the 'cool moon'. However, there can be no doubt of the parallelism to the Sanskrit poetical convention.

Both of these poetical phrases, then, show a close Toda parallel to well-known conventions of Sanskrit poetry. Since the conventions involved are not

particularly simple or even self-evident, and since Sanskrit poetry and Toda poetry are both Indian, and so in a sense 'contiguous', there can be no question of independent developments. We must posit some sort of diffusion as the historical explanation. What are the channels and the chronology? The subject of the first song, that which contains the 'laughter' = 'whiteness' equation, is one which must be of some antiquity within the Toda tradition, since it is an origin story of some of the features of organization of one of the clans. Even the organization of the total phraseology used guarantees that (though I cannot go into this matter here). For the cool moon there is no indication that the phraseology has any special antiquity in the tradition; on the other hand, there is no indication that it has not, except the subjective argument that coolness of this kind is hardly something that the Nilgiri inhabitants would appreciate, and that therefore recent diffusion is probable.

Possible links between the Sanskrit poetical convention and the Toda occurrences could be: (1) ancient Tamil conventions, or (2) conventions coming from Kannaḍa poetry through the intermediacy of the Badagas, or (3) modern Tamil, Kannaḍa, or Badaga songs. Too much is unknown (to me) about all these possible intermediate sources to allow even an approach to a solution. Yet the most economical, and consequently the most probable, solution would be one of those involving recent or fairly recent borrowing. The further assumption is, of course, in the background, that whatever the immediate source of borrowing, the ultimate origin is to be found in the Sanskrit poetical conventions. Here then is undoubted Sanskritization of an unexpected kind.

In the mythological phraseology and the song phraseology referring to the myths a striking phrase appears. The goddess Tö·ksiy created most of Toda social and religious institutions—the clans, the buffaloes belonging to the clans, the dairy institutions of all grades of sanctity and their connections with the clans, the sacred names of clans, buffaloes, dairies, etc., and, in fact, either explicitly or by implication the whole of Toda social and religious structure.[9] Another legendary figure, the hero Kwaṭe·n, also performed some acts of creation, though he is a distinctly minor figure in this matter. For the acts of both these creators the verb na·s- 'to play' is used meaning 'to create'.[10]

In a long, detailed story of Tö·kisy's acts of creation the verb is used often; *e.g.* i·ṇya·rm, kïsf θïṭa·ns, tö·kisy na·syfoy urpa·m wïḍi. 'Even up to now, on some mountains, there are the figures which Tö·kisy created (lit. played)'. aθïyi, ïda·rm, ti·k wïsoɬyk, töwfiɬy o·ɬ ni·r o·ḍyt. tö·kisy, ad na·syfoyoθi. 'That is why even to today men of the Töwfiɬy moiety are ordained for the ti·-dairy and for the wïsoɬy-dairy. It is what Tö·kisy created (lit. played) that day'. . . .iθ ofodym, mun go·stk, tö·kisy foc na·syfoy, paxtfoy, koṇ(k) ko·rymïyi, i·ṇy xïsc fodt. 'It is . . . all these things, the usages which in former times Tö·kisy leaving behind created (lit. played) and divided, that they go on doing now'. In another, much shorter text, it is said in a

summary way: . . . imuno·ṭṣ, no·ṛ o·ḍ na·s̲yk ïd̲t, tö·kïs̲yïyi. 'It is Tö·kis̲y who they say ruled the places in this world and played'.

In a song about the mund No·ṣ, where Tö·kis̲y performed her acts of creation, these verses occur:

(18.3) tö·kis̲y na·s̲yïθ no·ṛ/ kwaṯe·n poḍθïθ no·ṛ//
'Sacred place where (you, the goddess) Tŏ·kis̲y played./
Sacred place which Kwaṯe·n enjoyed'.//

(18.11) ïr o·s elm kwï·ṭ ïr xïs na·s̲yïθ no·ṛ/
paṛ o·s elm kwï·gič xïs na·s̲yï0 no·ṛ//
'Sacred place where you played with (i.e. created) all the buffaloes, (like boys) making toy buffaloes, (imitation horns from rhododendron twigs)./ Sacred place where you played with (i.e. created) all the implements, (like girls) making dolls (from rhododendron leaves)'.//

Other song phrases are:

(233.6) töö·kis̲y o·ḍïθ no·ṛ twï·r̲yxwïθïn/
kwaṯee·n na·s̲yïθ no·ṛ twï·r̲yxwïθïn//
'The sacred place (No·ṣ mund) is seen, which Tö·kis̲y ruled./ The sacred place is seen, where Kwaṯe·n played (in creation)'.//

(236.20) a mo d̲ e·θ twï·r̲yxwïθ xo·ɬ/
ö·kis̲y na·s̲yïθ no·ṛ aθoθi//
'Which is that mund that is being seen, friend?/ That is the sacred place (i.e. No·ṣ) where Tō·kisy played (in creation)'.//

In interpreting this use of the Toda verb na·s̲– 'to play', my informants referred to a Tamil phrase tiru-viḷaiy-āṭṭu 'the activities of a god, e.g. Krishna'. According to the *Tamil Lexicon*, any god can be referred to (and there is a work with a related phrase in its title, describing Śiva's activities at Madurai). For viḷaiy-āṭu 'to play' and related nouns (of which viḷaiy-āṭal has as one meaning 'sport of the gods'), see *DED* 4465.

There come to mind at once the Sanskrit words līlā and krīḍā as used of the creative activities of the supreme deity or some other creator entity. The earliest sure occurrences (as known to me) are Mahābhārata (Poona ed.) 12.296.2ab: ajasraṃ tv iha krīḍārthaṃ vikurvantī narādhipa '(Prakṛti) ceaselessly undergoing modifications here for the sake of sport', and Mānava-dharmaśāstra 1.80: krīḍann ivāi 'tat kurute parameṣṭhī punaḥ punaḥ 'the supreme being does this (the creation and destruction of the universe) repeatedly as if in sport'.

S.N. Dasgupta's *A History of Indian Philosophy* leads one to variously held views that the creation of the universe, or even all the successive cycles of the universe's creations and dissolutions, is the play or sport of Brahma (Śaṅkara's interpretation of the Brahmasūtra), or of Īśvara (late Nyāya-Vaiśeṣika works, and the Gauḍapādīyakārikās of the 8th century A.D.), or of Viṣṇu (Ahirbudhnya-saṃhitā of the Pāñcarātra school, and Lokācārya of Yāmunācārya's school). Some of the schools that hold this view, especially the last named, had considerable currency in southern India. The Vīraśāiva

(Lingayat) sectarians of Mysore hold the same view, here Śiva creating the universe through līlā.[11] It might be expected that the Lingayat groups among the Badagas would also hold this view, but it is uncertain whether they know it, even today when they have renewed contact with Lingayats of the Mysore country; their religious views, apart from their wearing the lingam and practising burial of the dead, hardly depart from those of the other Śaivite groups among the Badagas. On the other hand, the activities of Mariamma and other disease-causing goddesses among the Badagas are referred to as 'play'; these, however, are not creator goddesses.[12]

Again, there can be no doubt that the Toda usage is connected with and derived from the Hindu usage which is represented by the Sanskrit līlā and krīḍā. The stereotyped application to the goddess Tö·kiṣy cannot allow us to assume a recent borrowing. It must be of some age, but there are no further clues as to chronology or to the immediate source of the borrowing. It would be tempting and most economical, to think of the Badaga usage as the source. However, the reported restriction among the Badagas to the disease goddesses' activities tends against this view, especially when we consider that the Toda usage of the concept as having to do especially with creation, parallels so exactly what has been reported from the more general Hinduism (and Lingayatism) of the plains. We may guess that some Todas centuries ago picked up the concept at a temple in the plains, or that a wandering ascetic who penetrated from the plains into the Nilgiris was the source, or even that the proto-Todas brought the concept with them when they came into the Nilgiris, though this last seems most improbable if we hold that this event took place two millennia or more in the past (i.e. in all probability before the līlā concept was current). But, however this may be, the use of the concept by the Todas is a Sanskritization, and an unexpected and striking one.

The amount of Sanskritization in Toda verbalizations that has been demonstrated so far, does not come to much. Perhaps the most significant thing about it is that the Todas, backwoodsmen as they have been and isolated so effectively from the streams of Hinduism, yet have acquired even this much of the details of Sanskritic culture in this rather intimate sphere. Sanskritic culture has, indeed, been all-pervasive in India.

Much more surprising, but symptomatic of the extent to which Sanskritization can reach, is the phraseology found in a Christian Toda song in the old Toda technique. My chief informant-interpreter in the matter of songs was Kaṇfiṣody,[13] a Christian who strove to retain as much as possible of the tribal culture. He was an accomplished song composer. However, in the songs that I recorded on Christian subjects (songs 208-20), nearly all by him, personal affairs form the greater part of the subject-matter, rather than strictly religious matters. I have the impression that adapting the verbal technique to Christian institutions and doctrine proved difficult. 'Church' and 'God' are referred to by the words kuṛy and töw. The former is adapted from the old reference to Hindu temples; the latter is Sanskrit in origin (see above

footnote 4), but is the Toda word of long standing for a Toda divine being. When, after some suggestion from me, Kaṇfïṣody attempted and achieved a version of the Benedicite of his Tamil prayer-book (song 220), there were problems of translation of Christian terms and ideas that had to be solved. Some were abandoned, e.g. 'angels'. Other problems were solved by adaptation to Nilgiri conditions, e.g. 'snow' is replaced by 'dew'. The adaptation is ingenious and adequate. But the problem of translating the constantly repeated 'Lord' could not be solved by omission or adaptation. In vs. 1 there appears: mu·r̲e ro·jm uṭ xïsfoy kartnïyi/ mu·r̲ köpoṭm na·s̲yfoy o·ɬ so·myïyi// 'It is the Creator who created all three kingdoms (*i.e.* the Nilgiris)./ It is the Lord who created by play all the three directions'//. The use of the verb na·s̲- 'to create by play', which was discussed above, makes it very pointed that the intention is to contradict the tribal mythology (the goddess Tö·kis̲y creates in this way) and to substitute the Christian God. The terms used—kartn 'Creator' and so·my 'God, the Lord'—turn out to be Sanskritic. They are kartṛ- and svāmin-, filtered through Tamil as the intermediary language for kartn (see karttaṉ, karuttaṉ in *Tamil Lexicon*) and through Tamil or Kannaḍa for so·my (*DBIA*, no. 162). In later verses kartn does not reappear. There occurs in the verse-pairs so·my repeated, or so·my paired with töw. Most common, however, is so·my paired with sifn. This last of course is the Sanskrit god Śiva, with Tamil civan as the intermediary. This is indeed unexpected. One can only remark that the translation problems of the Christianized tribesman are difficult, and that in India, when the tribesman attempts to solve such problems by resort to the high culture of his own country, Sanskritization is likely to intervene.

NOTES

1. 'Toda, a Dravidian Language', *Transactions of the Philological Society* 1957.15-66.

2. 'Toda Culture Thirty-five Years After: an acculturation study', *Annals of the Bhandarkar Oriental Research Institute* 19 (1938).101-121.

3. See especially the writings of Professor M. N. Srinivas (Delhi) and Professor Milton Singer (Chicago).

4. See Emeneau and Burrow *Dravidian Borrowings from Indo-Aryan* (abbreviated *DBIA*), no. 219. Skt. daivya- 'divine'>Pkt. devva- id.>Ka. devva, devvu 'demon' (?)>To. töw. The Toda word cannot be derived from Skt. dēva-, because of the different quantities of the vowels ē and ö.

5. On their poetry, my papers 'The Songs of the Todas', *Proceedings of the American Philosophical Society* 77 (1937), 543-60; 'Oral Poets of South India—the Todas', *Journal of American Folklore* 71 (1958). 312-24 (reprinted in *Language in Culture and Society* [ed. Dell Hymes; 1964], pp. 330-43).

6. From this section of the Bṛhatkathāmañjarī (BKM), the text of which I constituted from the mss. many years ago and have never published. In the first passage quoted, there is one difference of reading from the edition; it is warranted by the mss.

7. These song texts will, it is hoped, appear in the not too distant future; [now *Toda Songs* (Oxford 1971)]. The numbers for song and verse are those of the projected edition.

8. The use of a buffalo name to identify some other object is common in Toda poetry.

9. Rivers' account is in *The Todas*, pp. 186-7. The phraseology in point was not recorded by him.

10. This verb is found in Burrow and Emeneau, *A Dravidian Etymological Dictionary*, no. 2988: Ko. nayḷ- (naḷc-) 'to play'; Ka. nali 'to be delighted, rejoice, be pleased with'; Koḍ. nali- 'to play' (in songs); Tu. nalipuni 'to dance, leap'; Kur. nalnā 'to dance, skip about'. This work is referred to by the abbreviation *DED*.

11. S. C. Nandimath, *A Handbook of Vīraśaivism* (Dharwar; 1912), p. 133.

12. I owe this information to the kindness of Dr. Paul Hockings, from his fieldnotes on the Badagas.

13. See 'The Christian Todas', *Proceedings of the American Philosophical Society*, 81 (1939).93-106.

CHAPTER XXVII

STYLE AND MEANING IN AN ORAL LITERATURE*

The songs of the Todas, a small Dravidian-speaking community of the Nilgiri plateau in South India, have by this time been reported on twice,[1] and an attempt has been made (in the second report) at a sociological interpretation. Preparation of a corpus of 260 texts for publication has involved indexing, and it is now possible to undertake a stylistic analysis.

This analysis will proceed by taking for granted a linguistic analysis of the language as it is found apart from the songs, and by adding to the model the further dimension or dimensions (if a metaphor be permitted) that differentiates song from not-song. It will not be necessary to specify what type of model might be used for the grammar of the language found in utterances apart from the songs. Nor need the additional statements that are necessary to describe the song language conform to any particular technique or model, so long as the statements are intelligible and (so far as human frailty permits) are complete as a characterization of the differentiation. If the overall organization of the analysis proceeds in levels, it does not follow that any particular brand of level or stratum analysis is thereby endorsed; this type of procedure is very old and is still convenient, even when no particular procedure is explicitly postulated. An occasional piece of contrastive analysis will be given in order to differentiate the grammar of the two types of language. For convenience, the language of ordinary speech (not-song) will be labeled 'prose'.

At the lowest level, that of phonetics, the fieldwork failed to achieve a musical recording. This is to be attributed to the fieldworker's lack of musicological training and to the non-existence in the mid-30s of adequate recording machinery for field use, but it leaves a deplorable gap in the description and analysis. Impressionistic statements will have to suffice.[2]

Songs are produced in two ways, either sung to a melody or shouted as an accompaniment to a dance. Any person—man, woman, or child—can sing; only men can dance (though children of both sexes imitate the dance in play). Both types of rendition require special types of voice production.[3] The impression is that there are three types, one for the dance, and one each for men's and women's singing. Each of the three types adds to, or substitutes for, the normal prose voice-production a special type of distortion, which in linguistic terms means a special set of allophonic statements. Whether these

Language 42.323-45 (1966).

represent special allophones for each allophone of the prose language, or are to be stated in terms of linear prosodic features, cannot be decided on the basis of impressions; it could probably best be analyzed out of recordings (tape or other) by spectrographic techniques. Both melodic singing and dance shouting add to the song-units (to be described later) extra material, which can be approximately labeled syllables. In the former the extra syllables fill out the melodic line (as do the *tra-la-la-la's* or *hi-de-ho's* of some types of song in English). In the dance a more standardized and smaller number of syllables is added, fitted to the dance rhythm.

Transcription in the field of the words of the songs was achieved by dictation, which yielded the words stripped of melodic line, special voice production, and extra syllables, but spoken as if they belonged to the prose language. The result assumes, what is again only impression or postulation, that the same phonemic analysis would apply to the song words when rendered in any of the types of song production, as applies to the song words when dictated as prose. Attempts to check this by listening to songs in all types of production were not successful because of the high degree of distortion that all the various types of production induce. At the phonemic level, then, it is assumed that no statement is needed to distinguish the song language from the prose language.

The phonemic level just referred to, however, is only that of linear phonemes—vowels, consonants, and their distribution. Whatever else is necessarily included in phonemic analysis, viz. phrase and sentence intonation patterns, is very different in songs and prose. These patterns as they appear in prose are probably completely wiped out by the patterns, melodic or other, of song rendition. The major differentiation in prose intonations is between that of declarative sentences and that of some interrogative and vocative sentences. Whether any trace of this differentiation remains in songs as sung to a melody is unknown, but seems doubtful, since the same melody is represented over and over with different words in singing the song, presumably without any variation that can be related to the prose intonation patterns. Impressionistically, it is judged too that the shouting technique of the dance-songs precludes any variation based on prose intonation. In any event, those interrogative and vocative sentences that in prose are marked by a contrastive intonation pattern also contain characteristic suffixes that in themselves contrast with the morphological makeup of the other type of sentences. That is, the intonation patterns of prose are in part at least redundant, and this redundancy (it is assumed) vanishes in song.

A really major difference between prose and song lies in their very different organisation into utterances. Prose utterances are organized in sentence units, with subdivision into phrases. The song organization is into song-units of three syllables each (exceptionally four syllables).[4] Each song-unit with its extra *la-la-la's* fills up the melodic line completely; in the dance shouting the song-unit plus the extra syllables makes a rhythmic unit. The

song-units are carved out of sentences which coincide in large part with prose sentences in their morphological and syntactic structures. The beginnings and the ends of song-units always coincide with prose word-beginnings and word-ends (an analysis of the language must recognize words). There may be no word divisions included within the song-unit, or there may be one word division or two. When word divisions are included within the song-unit, these divisions are presumably to be determined in general as in prose, i.e. by phonemic distributions and by comparison of utterances; the prose factor of a stress on the initial syllable of a word is presumably missing in song.

A phrase end of prose, or, to put it otherwise, a major break in immediate constituencies, does not necessarily coincide with a song-unit end. It may so coincide, or it may fall within a song-unit; or, on the other hand, the end of a song-unit may fall within a phrase. E.g. nïnke ïr paṭkin ena· (lit. for-you buffalo shall-I-catch my-son-?)[5] 'shall I catch a buffalo for you, my son?' has its major structural breaks as follows: nïnke, ïr paṭkin, ena·, with no major break between ïr and paṭkin where the end of the song-unit falls. In the following: po·n iṭ moẓ öḍθïtïn (lit. sky this-way cloud it-rises) 'clouds rise in the sky', there is no major break between moẓ and öḍθïtïn, i.e. at the song-unit end; the word iṭ is in immediate constituency with öḍθïtïn, and a major break comes after po·n. It is necessary to make the statement that a sentence end always coincides with the end of a song-unit. The sentence end, however, is phonologically not otherwise marked, since (as was stated before) the sentence-ending intonations of prose do not appear in the songs, and no other markers for a sentence end appear in the songs on the phonological level. However, the syntactic and morphological structure is such that there is, even in songs, no possible ambiguity about where a sentence ends.

Many of the song-units are padded to achieve the length of three syllables. Most of the methods of padding are morphophonemic in character. One may be treated at the level of allophony. A long vowel is broken into two vowels of the same quality, the first short, the second long; e.g. poo·s̲k ïr (lit. for-father buffalo) 'buffalo(es) for father'.

Most of the other fillers can be covered by morphophonemic statements of fairly general scope. Many song-units that consist of two monosyllabic words of prose are filled out to the song-unit norm of three syllables by insertion of /e/ between the two words. This is most easily stated by a list, in which /e/ is given as belonging with the preceding word as a special suffix of song, or the form with /e/ is taken to be a special song allomorph of the monosyllabic word. Exx. pïne bo·θ 'golden ridgepole' (it is notable that po·θ 'ridgepole' would appear in prose as bo·θ after a nasal ending a preceding word, i.e. pïn bo·θ is prose, and /e/ is inserted without affecting the prose morpho-phonemics that determine b-; on the other hand, a more prose-like form was dictated several times: pïne fo·θ, in which f- replaces p- after a vowel as it should in prose); pi⸗ye θüṭ 'silver thatch-binding' (θüṭ for tüṭ after a vowel

or after y is regular in prose and in verse). In some instances the first word has the dative suffix -k; e.g. no·ṭke mu̲ry (lit. to-the-sacred-places complaint) '[to make] complaint to the sacred places' (no·ṭk is the invariable prose form).

In a number of song-units /ï/ is inserted, usually between stem and suffix in the first of two monosyllabic words. In a number of units the first word is a locative with suffix [Sib] (morphophonemic symbol for sibilant). In prose this suffix is realized as -š̆ after y, -ṣ after a retroflex, -s̲ after an alveolar, and in various other ways (e.g. -z̧ after twï· 'buffalo pen', i.e. twï·z̧). In song there has been found -ïš̆ after y (e.g. moṛyïš̆ mox 'on-the-lap child'; nityïš̆ xo·s 'on-the-forehead coin'), -ïṣ after a retroflex (e.g. kaṛïṣ xo̲r̲ 'in-the-calfpen calf'; maḍïṣ ṇi·r 'on-the-head water'; no·ṭïṣ θo·r̲ 'in-the-places important-men', a doublet for no·ṣ θo·r̲, which has morphophonemic simplification of no·ṭṣ), -ïš̆ after l (probably by analogy to -ïš̆ after y; e.g. ko·lïš̆ xa·g 'on-the-feet black-yarn', which occurs parallel with nityïš̆ xo·s; talïš̆ ni·r 'on-the-head water'). A suffix which when added to a verb stem produces an attributive form appears as -θ in a unit made up of three monosyllabic words, and as -ïθ in a unit which otherwise would be made up of two monosyllabic words, e.g. ïd̲ nwï·ṭyθ xoṇ (lit. today which-look eye[s]) 'eyes which look today'; nwï·ṭyïθ xoṇ (lit. which-look eye[s]) 'eyes which look'; pu·tïθ fu·f 'a flower which has blossomed'. A set of 3d-person tense forms has in prose -t-i (-i being a suffix that marks declarative sentences) and in song- -ït-ïn; e.g. öḍθïtïn 'it rises/they rise' (prose: öḍθti).

Many of the song-units end with -ad. When added to a verb stem, this might possibly be analyzed as part of the verb morphology, but it is found just as frequently added to a noun, even after a case suffix, and when so found with a noun has no possible morphological parallel in prose. It is best taken as a filler, statable at the morphophonemic level. That this is so is guaranteed by the syntactic equivalence of moṛyš̆ moxad with moṛyïš̆ mox, which was analyzed in the previous paragraph, and of kaṛṣ xo̲r̲ad with kaṛïṣ xo̲r̲ (ibid.). Other examples: en mu̲r̲yad 'my complaint (mu̲r̲y)', pa·topad 'a wave of the river', pö·r̲ fo·yš̆nad 'from the edge of the cliff' (po·y 'edge', -š̆n 'from'), o·ṯ aṛsad 'recognizing (aṛs) a man', teš̆kš̆ ïṭad 'putting (ïṭ) in the hanging loop', er̲ty foθkyad 'outstripping others and prospering (poθky)', up oḍcad '[to pour] salt, outstripping others in the ceremony (oḍc)' (in this unit there is a structural break after the word up), poyoθad 'such as had not been born before' (poyoθ = poyo in the song-unit poyo mox 'child[ren] such as had not been born before').

The morphology, especially that of the verb, shows much differentiation from that in prose. This is found chiefly in the suffixes that occur between stem and inflectional ending (tense-aspect-modal suffixes), but also in the choice of allomorphs of the inflectional suffixes. Only a few illustrations need be given.

One of the past-tense paradigms is constructed thus: S^2 (a stem consisting of a root plus a suffix which is found in past and in present/future)- + - ïθ- +

inflectional suffixes (1sg. -en, 1pl. incl. -u, 1pl. excl. -em, 2sg. -i, 2pl. -s̲, 3 -ïn) + [k] (-k after vowel, -ïk after -s̲, -g after nasal),[6] e.g. paṯyïθeng 'I seized', öḏθïθik 'you rose up', kïsïθuk 'we (incl.) made', nïḏïθs̲ïk 'you (pl.) stood', pocïθïng 'he kept'. Forms of this paradigm do not occur in prose. The nearest parallels in prose are two paradigms which have the inflectional allomorphs just listed plus [k], both sets of forms being used in subordinate predications, one denoting continuous action, the other completed action. Instead of -ïθ-, the former has no suffix in this position, the latter has a sibilant (or affricate resultant) plus -ïθ-; e.g. o·neng 'when I was being', o·čïθeng 'when I had become'.

Another example of song differentiation is seen in one of the non-finite verb forms, the negative gerund (or absolutive), which in prose is constructed as root + -oθ, in song as root + -os̲y; e.g. aṟyos̲y 'not knowing' (prose aṟyoθ).

The embryo construction of the most common predication type in Toda[7] consists of noun (or pronoun) subject plus verb root, in that order; the verb root may be expanded by various nouns (direct object, dative, locative, etc.) preceding it. The whole construction may be ended in various ways: (1) expansion of the verb root by stem suffixes plus tense-aspect-modal suffixes plus inflectional suffix, this last being in agreement with the subject; (2) expansion of the verb root by one of several nonfinite suffixes; (3) expansion of the verb root by one of several noun-derivative suffixes, the whole construction then being construable as a noun with a case suffix or as an attribute to a following noun or in several other ways; or (4) expansion as in (1), the inflectional suffix being different in reference from the subject. In both (1) and (4) the initial subject word is only optional; in (1) the final inflectional suffix by itself is enough; in (4) the initial subject word may be understood from the context. Both (1) and (4) require in several contexts a further suffix which ends the sentence (e.g. -i declarative sentence, -a· interrogative sentence). The expansion of type (4) is rare in prose, but very common in the songs. A prose example is kïfy xöṭpini 'I am being deafened', kïfy xōṛ- being the embryo 'the-ears to-be-damaged' (in type 1, 'the ears are damaged') and the inflectional suffix -in- being 1st person singular. Song examples: nïẓïš̌ xiṛy pu·tfïnen 'I have a spark that blossomed in my heart', nïẓïš̌ xiṛy pu·f- being the embryo 'in-the-heart spark to-blossom' (in type 1, 'in the heart a spark blossoms') and the inflectional suffix -en being 1st person singular; tobe·ry iṯ pi·syfïnya· 'have you suffered that she left orphans behind here?', tobe·ry iṯ pi·s- being the embryo 'orphans this-way to-leave' (in type 1, '[she] left orphans behind here') and the inflectional suffix -y- being 2d person singular; kwïgïš̌ fi·s̲ ko·sfïnum 'we felt the sun hot in the plains', kwïgïš̌ fi·s̲ ko·y- being the embryo 'in-the-plains sun to-be-hot' (in type 1, 'in the plains the sun is hot') and the inflectional suffix -um being 1st person plural inclusive; peṭ xïṟ tal paṯneni (a dairy speaks:) 'I am the place where (the priest) holds the small end of the cane', peṭ xïṟ tal paṯ- being the embryo 'cane small end to-hold' (in type 1, '[the priest] holds the small end of the cane') and the

inflectional suffix -en- being 1st person singular; ka·s̲ θo·r̲k e· no·r̲ θoṇ o·x aṭ fï·x (said to a sacred dairy:) 'cause all the sacred places to be gracious to the people of Ka·s̲ clan! go away!', the embryo being ka·s̲ θo·r̲k e· no·ṛ θoṇ o·x- 'Ka·s̲ clan-to all sacred -places gracious to-be' (in type 1, 'all the sacred places are gracious to Ka·s̲ clan') and o·x being 2d singular imperative (o·x- +zero).[8]

Morphology and syntax in a traditional sense are only the beginning of the description of a language. It cannot be complete until it includes a full statement of the selection of morphemes and the tolerances of morphemes for each other. Much of this is scamped in most descriptions by identifying certain positions in constructions as the privilege of open-ended classes. But in fact any open-ended class must be subdivided into many small classes, each of which has a privilege of coöccurrence with a corresponding small subclass of another open-ended class in another position; an easy example in English would be the subclasses of verbs that coöccur with subclasses of nouns in the subject position, or the subclasses of verbs that coöccur with subclasses of nouns in the object position. The language of Toda prose will require a description of classes in theory no different from that of any other language. There will be closed classes of suffixal material and of constructions, and comparatively open-ended lists of morphemes (nuclear) that occur in certain constructional positions, these lists being subdivided on the basis of mutual coöccurrence privileges.

Toda song language differs widely from this. The closed classes of suffixal material and of constructions are somewhat smaller (more selective) than those of prose. But the greatest difference, one of kind, lies in what corresponds to the open-ended lists of morphemes of prose and the subdivisions that depend on the coöccurrences from several such lists. In song these lists are, in principle, closed and, consequently, much shorter than those of prose. To put it in other words, less linguistically framed, the song language is in theory completely formulaic. All the song-units of three (or four) syllables are fixed formulas. Moreover, their coöccurrences also are formulaic, or in the linguistic terminology outlined above, the mutual coöccurrence privileges are as firmly fixed as are the lists of morphemes. This formulaic character means, in theory, that no song-unit can occur that does not occur elsewhere in the corpus, nor can a combination of song units in a sentence occur that does not occur elsewhere.

The formulaic character of Toda song, this added dimension that differentiates Toda song from Toda prose, is not *sui generis* and found only in this community. It has been pointed out elsewhere and by others that many oral literatures are thus characterized—the Homeric poems, the South Slavic epic, the ancient Hindu epic, the Vedic religious poems, the Coorg dance songs. It is at least possible that the Toda technique surpasses most of these in the rigidity of its formulaic nature, i.e. in the closed nature of its selection of morphemes.

Moreover, one further statement must be made about limitations of

occurrence. Each sentence in Toda song (with very few exceptions)[9] occurs in a paired distribution with another sentence. The two sentences are made up of formulaically fixed pairs of song-units, and the overall syntactic constructions of the two sentences are parallel and fixed. This added dimension in the Toda song style is again not unique—the old Hebrew song technique was marked by parallelism (the Psalms, some of the prophetic utterances)—but the rigidity of the Toda technique in this regard is remarkable.

In what was stated above, the Toda technique was described as a closed one, but at the same time a qualification was introduced by adding 'in theory'. The demonstration that it is in theory closed is to be seen in an index of the formulaic song-units in the corpus at hand. In this index the majority of song-units appear more than once each. Moreover, certain subjects and themes of song reappear repeatedly in the corpus, e.g. a lament for a person who has recently died, set passages to describe evening (linguistic paragraph analysis is indicated). So many songs on these favourite subjects were recorded that there occur in them very few units that do not appear repeatedly. However, extensive as the corpus is, the index still contains many units that appear only once. Most of these are of such a contextual nature, matching, for example, localities or social or religious traits that happened to occur only once each in what was dictated, that it is fair to assume that these units also are formulaic and would have appeared repetitively if the corpus had been larger. About no song-unit can one be certain that it is not formulaic. With this qualification the formulaic nature of the whole corpus can be asserted. This is the necessary statement for a static description of the song technique. It is, too, the implication of a statement by one of the composers, that anyone knows the words of songs, but it is the song melody that must be original for each new song. Given such a body of formulas which everyone in the tribe has heard again and again and has memorized and mastered more or less well, anyone in fact can compose and sing extempore—and this is the essence of Toda singing.

Historically, however, rather than statically, one must view the matter differently. The technique has been enlarged within the last century and a half to include formulas for singing about Indians of the plains and about the English; many formulas are identifiable that refer to these and that could not have existed before the historical invasion of the Nilgiri plateau by these outsiders. Within the present century Toda Christians have enlarged the technique by addition of some formulas which refer to their life. At a different historical period, much further back in time, the technique must have developed from modest beginnings and been gradually enlarged by the addition of more and more song-units and constructions which became formulaic, until it reached its present voluminous inventory. No chronology has so far been attainable, since the very slow process of accretion at present is no guarantee that it was equally slow at all past periods, and in fact the material

at hand allows not even a guess at the present rate of growth or that of any other period.

Examination of the songs in their formulaic and parallel structure, and examination of the separate song-units lead to general statements about the selection of morphemes, which differentiate song from prose. These statements are an analysis of the song style.

A conspicuous feature of the song style is repetition. This is of four kinds.

(1) The first is a corollary of the parallelism of the song structure. The parallel sentences, of no matter what length as measured in song-units, are sometimes identical except for one form in each. The varying pair of forms may be two synonyms, or forms denoting closely related entities. Except for these varying forms, the two sentences are identical, and this identity extends through several pairs of song-units, the varying members being contained in one syllable only or in two syllables or in all three syllables of the first pair of song-units.

wïḏ o·ɬ uṭ e·fïnen ïḏïθik/wïḏ o·ɬ feṛp e·fïnen ïḏïθik // (105.18)

'You said: "I have become a person who is alone." ' uṭ and peṛp are synonyms: 'one who is born, a person'; the first pair of song-units is literally: 'one man person'.

ko·rymïy ïḏ kïyoθïn/koṇkïy ïḏ kïyoθïn// (105.25)

'They did not do the ceremony.' ko·rym and koṇk are synonyms: 'ceremony'; the first pair is literally: 'saying: "It is the ceremony." '

no·ṣ θo·ṛ ko·sïšt oṇa·/ kwï·ṭïṣ ars ko·sïšt oṇa·// (65.22)

'O elder brother! have the people of the No·ṣ clan been angry?' The two kwaṣm ('sacred names') of the No·ṣ clan form the first pair of units.

o·ṛ oṇtafṣ wïḏ o·ɬ wïḍs ïθfïnen ïḏïθik/

o·ṛ wïrxity wïḏ o·ɬ wïḍs ïθfïnen ïḏïθik // (105.19)

'You said: "I have lived, the only person surviving among the many (lit. six) brothers."/ You said: "I have lived, the only person surviving among the many (lit. six) sisters-in-law." '//

These, however, are limiting cases. More frequently the repetition, though still striking, is not so extensive. The varying nouns in the first pair, not being synonyms, may be combined with appropriate but different verbs later in the sentences. Or synonymous verbs may occur instead of the same verb. Or there may be other types of variation in the paired material.

ïṛy o·yad ïṛcïθik/mic o·yad miǩïθik// (51b.36)

'You thundered like thunder./ You lightened like lightning.'// o·yad 'becoming' is syntactic repetition in the first pair, the morphological material -ïθik in the second.

naɬkanïṣn naṣ ïr nwï·ṭy o·θ ïrad e·tumïn/

picxöö·ṭṣṇ naṣ paṛ nwï·ṭy o·θ faṛad e·tumïn// (61.12)

'Looking for beautiful buffaloes, we took from the mund Pexoṛ superior buffaloes./ Looking for beautiful household things, we took from Moṛtxö·ṛ mund superior household things.'//

Since almost every pair of parallel sentences has identical syntax in the two sentences, there is an almost inescapable repetition of some elements—at the minimum, of inflectional morphology. The overwhelming impression is of repetition.

kaa·ɾpiɬc kaɾo·lxwï·ṭk tüɬcïpïk tüɬcïθik/
pöɬ kopaɳ pöɬ deiʂyk o·ḍyïpïk o·ḍyïθik // (95.16)
'At Kaɾo·lxwï·ɾ you twittered as the ka·ɾpiɬc bird twitters./ You danced as the white moth dances at the lamp-niche.'//

ïsoxo·ɾng nïḏïθ ïr wïḍsfïči/ e·fïrgoḍng pocïθ wïṛm pïɾsfïči// (99.9)
'The buffaloes that were intended for the important man have left him behind./ The things which they kept to be burnt at the funeral for the important man have been used up.'//

po·ʂö·k uṭoθad uṭyïθik/ ö·kiʂyk pe·rfoθad pe·dïθik// (52.7)
'For No·ṣ mund you were born, one such as was not born before.' In this and the two preceding examples there is seen the bare minimum of repetition between the two sentences, i.e. repetition only of inflectional material (in the last example -k -oθad -ïθik).

taʂušeθ kaʂ oḍcfišky ïḏïnwïṛ po·š tüɳyad o·n düṭkin ïḏïθik/
taʂo·lgwïṛyš muɬ u·ɾyfišky ïḏïnwïṛ u·ɾyïθ muɬ o·n fo·ɳkin ïḏïθik// (86.15)
'When they said: "At the Taʂo·ṛ ti·-dairy the stones have slipped down", you said: "I will wear the dirty (?) priest's garment."/ When they said: "At the Taʂo·ṛ ti·-dairy the dairy-site has been overgrown by thorns", you said: "I will clear the thorns with which it has been overgrown." '//

(2) A second type of repetition will have been noted in several of the examples. There is a linear repetition within the individual sentences, in this case not of inflectional material but of stem morphemes. Various syntactic constructions are involved, sometimes in comparisons, sometimes in dialogue in which a remark is followed by a partially repetitious response, sometimes in other types of syntax less easily classified. Comparison is seen in: tüɬcïpïk tüɬcïθik 'you twittered as it twitters' (95.16), o·ḍyïpïk o·ḍyïθik 'you danced as it dances' (ibid.), ïṛy o·yad ïṛcïθik, mic o·yad mičïθik (51b.36; see above). Dialogue is seen in: muɬ u·ɾyfišky. . . u·ɾyiθ muɬ (86.15; end of previous paragraph). Less easily classifiable are in the above examples: ïr repeated in 1st line and paɾ in 2d (61.12), and uṭoθad uṭyïθik, pe·rfoθad pe·dïθik (52.7). The corpus contains much material of this kind. A few further examples will show the degree of elaboration that can be attained.

In a song, 84 verses long, about the mund (i.e. hamlet) Ka·ʂ (song 9), which is only one of a series of songs very similar to one another in structure and style concerning various munds, many of the verses contain linear repetition according to several syntactic formulas. Very frequently there is non-proselike redundancy, since the fixed length of the song-units prevents free syntactic combinations sometimes. But redundancy is not always involved (cf. the third example).

to·s̲ya‡fš̌ kotyïθ fö‡k pö‡k i· nas̲θ (9.9)
'The lamp which they light in the dairy To·s̲ya‡f, how beautiful is the lamp!'
The two forms pö‡k and fö‡k are allomorphs of the same form.

a tas̲kas̲ po·s̲wïṛ ïr ïr xarθfïs (9.30)
'At that Tas̲kas̲ the buffalo with milk, the buffalo has bellowed.'

ïšku·θi‡ṇ muṛy θas̲a·r̲ muṛy o·ṛθi/ u·θi‡ṇ kafy θas̲a·r kafy o·ṛθi// (9.33)
'There is no summit superior to the summit U·θi‡ṇ./ There is no twin-peak superior to the twin-peak U·θi‡ṇ.'//

In several verses of the syntactic pattern last exemplified the same item appears three times, one occurrence being the last element in the proper name.

ko·ṛṇe·s̲fï‡ pï‡ θas̲a·r̲ pï‡ o·ṛθi (9.32)
'There is no path through a thicket superior to the path Ko·ṛṇe·s̲fï‡.' (pï‡ and its allomorph fï‡ are 'path through a thicket'.)

Probably the greatest degree of elaboration of this type of repetition is that found in song 182, a song that was dreamed by a woman Wï·z̦, whose imaginative dream songs have been treated in an earlier account.[10] In a long succession of verses (11-19, i.e. 18 parallel sentences) there occur two, three, or (more often) four linear repetitions of nouns, combined in some of the verses with repetitions (to a smaller degree) of verbs. A dead person is singing. The first such sentence is:

ku·ṛe faṛ enke faṛ ku·ṛyïθ faṛ nïnke faṛ ku·ṛeṭkin (182.11)
'The crowd such as had not gathered before, the crowd that gathered, the crowd for me—I shall make a crowd to gather for you.' paṛ/faṛ 'crowd' occurs four times, and the verb ku·ṛ- 'to gather' three times.

A special case of linear repetition is found in a large group of song-units, in each of which the first and third syllables are the same noun or pronoun; most of these units occur in pairs. They fall into two groups: (a) those in which there is no redundancy, (b) those in which one occurrence is redundant.

(a) In a fairly large group the first noun is followed by -mil: '. . .-after/upon/against. . .'.

moxmil mox poyšepïk o·nenïn/ ïrmil ïr o·ḷṣepïk o·nenïn// (61.26)
'I hoped in vain that you would bear child after child./I hoped in vain that you would own buffalo upon buffalo.'//

Similarly, ke·‡fmil xe·‡f, mo·tmil mo·t 'words upon words' (44a.35); koɼmil xoɼ 'calf after calf' (92.13); kö·ṭmil xö·ṛ, kwï·ṭmil xwï·ṛ 'death after death, horns upon horns (of buffaloes slaughtered at funerals)' (46.34, etc.); puṛmil fuṛ 'blow against blow' (113.19); toɼymi(1) ṭoɼy, aɼmiṭ aɼ 'clubs against clubs, stones against stones' (116a.7, etc.; -miṭ in the second unit is derived from the first unit, instead of -mil); etc.

A few similar phrases have -wïṛ: '. . .-with'. . .; e.g. arswïṛ ars, pö·ṛwïṛ fö·ṛ '[to make us to be] Europeans with the Europeans, Tamilians with the Tamilians' (209.44); kas̲wïṛ xas̲, kuḍwïṛ xuḍ '[to be struck by] stone after stone, club after club' (72.30, etc.)

In a large group a noun preceded by a possessive pronoun is followed by

the same pronoun in another case form; e.g. om ïr omk '[to kill] our buffaloes for ourselves', tam ïr θamk '[to drive] their own buffaloes for themselves', tan ge·ɬf θank '[to do] his own work for himself', tan baṛ θann 'his crowd [beats] him'.

In one group the first noun is object of a gerund (the second syllable) and the repetition of the noun in the third syllable provides the object of a verb in the following unit. A typical example is:

ely fïṭ ely podïθïng/kwï·ṛ fïṭ xwï·ṛ podïθïng// (208.6)

'Leaving (her own) boundary, she came to (another) boundary./Abandoning (her) path, she came to (another) path.'// Occasionally there is approach to redundancy:

ely fïṭ ely e·d̲ θo·ḍn̤en/kwï·ṛ θo·ṭy xwï·ṛ e·d̲ xaḍθen// (164.4)

'Why, abandoning (my own) boundary, did I cross the boundary?/ Why, crossing by the path, did I pass along the path?'//

In one pair there occur in each unit a noun, object of a following gerund, and then, as third syllable, a verb form (2sg. imperative) etymologically related to the noun:

po·ṭ θu·ky fo·ṛ/ne·s̲k fuk na·s̲// (12.1, 195.1)

'Sing, raising the song!/Play, entering upon the play!'// In each occurrence this introduces a song of the kind technically called po·ṭ.

One unit has a noun preceded by a paradigmatically connected noun derivative of the corresponding verb: uṭyïθ uṭ 'child who was born (as my sibling)'. The parallel and synonymous unit, which has the same construction, is less clearly repetitive because of irregular allomorphy: pe·dïθ fer̲p.

(b) Among the examples of redundancy within the song-unit, one group consists of noun + noun predications, in which the second noun phrase seems to have a redundant repetition: a·s̲ fo·y a·s̲/ twï· fo·y θwï·// 'The house [becomes] an empty (abandoned) house./ The pen [becomes] an empty (abandoned) pen.'// (38.55, etc.). Even more repetition is found when a pair of song-units precedes these, with a·s̲ and twï· as indirect objects of nwï·ṭ- 'to see':

a·s̲k nwï·ṭn̤engm a·s̲ fo·y a·s̲ e·fïsïn/
twï·k nwï·ṭn̤engm twï· fo·y θwï· e·fïsïn// (83.33, etc.)

'Whatever house I look at, the house has become an empty house./ Whatever pen I look at, the pen has become an empty pen.'// Similar to this pair is: no·ṛ fo· no·ṛ, töw fo· θöw (3b.26) 'the sacred place [has become] an abandoned place.'

In a large group, similar to the last in that the unit consists of noun + adjective (or attributive noun) + the first noun repeated, the repeated nouns are in the same construction with the remainder of the sentence, i.e. they are in apposition with each other, and the first one, consequently, is redundant. Two examples contain the pair of units last exemplified:

a·s̲ fo·y a·s̲k ïrkin moxya·/ twï· fo·y θwï·k nwï·ṭkin moxya·// (81.72)

'O husband! shall I live in a house, an empty house?/ O husband! shall I look at a pen, an empty pen?'//

a·s̲ fo·y a·s̲ po·s̲a·r̲ aṛt pi·fïššïn/

twï· fo·y θwï· twï· fo·s̲ θer̲θ pi·fïššïn// (78.32)

'Shutting the doorway of the house, the empty house, she has gone./ Opening the entrance of the pen, the empty pen, she has gone.'// The second sentence contains a further redundancy in twï· at the beginning of its second song-unit (for which linear repetition, cf. the earlier examples in this section 2).

A complex example with a further redundancy of the kind just given is:

ke·noẓfïn kïsïθ nöw nöw e(n) nöw öštyïθ xoṇ koṇ en goṇ ïd̲ïθing (230.27)

'Ke·noẓ said: "Songs, my songs, the songs that I made; song-words, my song-words, the song-words that I composed."' (Cf. note 9.)

Other examples are: ku·x e·ḍ xu·x 'daughters, two daughters' (217.2); kwï·s̲ fa·s̲ xwï·s̲, peṭ xïr̲ peṭ 'stick, pa·s̲-wood stick—stick, small stick' (236.70); pe(p) puθ pep, ïr fuθ ïr 'coagulant, new coagulant—buffaloes, new buffaloes' (13.6); pu·f ar̲ pu·f, ko·y ar̲ ko·y 'flower, a useless flower—fruit, useless fruit' (82a.19, etc.); no·ṛ fe no·ṛ, töw fe töw 'sacred place, great sacred place—god, great god' (13.3, etc.); peɬ ṇas̲ peɬ, po·s̲ wïly fo·s̲ 'crops, beautiful crops—milk, good milk' (220.24); piɬy θö(b) biɬy 'a ring, a copper ring' (131.12); to·w fo·(s̲) ṭo·w, tüɬy fo·(s̲) ṭüɬy 'the plank, the chief plank of the dairy—the pen gatepost, the chief gatepost' (230.42-3); kuḍ xïfy xuḍ '(wooden) plugs, ear-plugs (worn instead of earrings)' (131.11).

A similar type of redundancy is seen in units composed of noun + interrogative + repeated noun, again the first noun being redundant. Two mund songs (songs 20, 21) have numerous examples, with elaboration by linear repetition within the question and answer which make up the loosely constructed sentence. One example:

ki·(n) nas̲θ ïd̲ ki·n e· ki·n ki·nfïs̲xi·n/

ko·r nas̲θ ïd̲ ko·r e· ko·r naa·s̲xo·r// (20.28)

'Saying: "The deep pool is beautiful"—deep pool, what deep pool? The deep pool Pïs̲xi·n./ Saying: "The young grass is beautiful"—young grass, what young grass? Na·s̲xo·r.'//

Similar examples from other songs:

podfoy swï·ly swï·ly in swï·ly ïd̲ïθik (230.30)

'You said: "Business, what is the business, the business for which you came?" '

kas̲ oḍcθ ïṛts̲ kas̲ i. xas̲ nwï·ṭy fo· (ï)no·/

muɬ u·r̲n ïṛts̲ muɬ i· muɬ nwï·ṭy fo· (ï)no· //(233.65)

'Say to me: "Come and see what stones there are (lit. stones, what stones) at the place where the stones have slipped down!" / Say to me: "Come and see what thorns there are (lit. thorns, what thorns) at the place where (the dairy site) has been overgrown by thorns!" '//

A similar song-unit pö·r i· fö·r 'name, what name?' occurs frequently

(along with others of the interrogative type first described) in songs describing my linguistic questioning (songs 229, 230, 232, 233).

up oṭyk ïr pö·r i· fö·r ïḏïθik/ e·r̲nga·r̲k e·r̲ a·r̲sïθik // (232.40)

'You said: "What is the name of the buffalo at the salt-giving place?"/ You knew the male calf at the place where they sacrifice the male calf.'// The unit e·r̲nga·r̲k e·r̲ is less easily classifiable.

In 78.30:

moṛyš mox moṛyš pi·syfïššïn/ kaṛṣ xo·r̲ xaṛṣ pi·syfïššïn//

'On the lap she has forsaken the children on the lap./ In the calfpen she has forsaken the calves in the calfpen.'//, the second occurrences of moṛyš and kaṛṣ are quite redundant. Since these two units are clearly based on the much commoner moṛyïš mox, kaṛïṣ xo·r̲ and moṛyš moxad, kaṛṣ xo·r̲ad (see above), one must conclude that the redundancy in the present example results from a striving for a desirable stylistic trait.

The lullaby pair: ti·ruθi·r, ti·ronoḍ, has not yielded to analysis, but the first unit probably is best put here.

This section on repetition within the song-unit may be closed with a small group in which the repeated items are not the first and third syllables. In two pairs they are the second and third: ay o·ṯk o·ṯ, ay ïrk ïr 'a succession of men (in the clan), a succession of buffaloes' (lit. man to that man, buffalo to that buffalo); this pair occurs very frequently. The other pair occurs only once but is clearly formulaic:

wïḏ mox mox nobyïθeng/ wïḏ xoṇ goṇ nobyïθeng// (226.5)

'I depended on you, my only son./ I depended on you, my only eye.'// (lit. one son son—one eye eye)

In another group the repetition is in the first and second syllables. The unit already given, uṭyïθ uṭ, has a shorter allomorph of the first word, i.e. it is compressed to uṭyθ uṭ, which is followed by various words; the parallel unit has pe·dθ fe·r̲p (replacing pe·dïθ fe·r̲p). Examples: uṭyθ uṭ e·ṇṣa·, pe·dθ fe·r̲p e·ṇṣa· 'O two children who were born!'; uṭyθ uṭ wïḍ, pe·dθ fe·r̲p wïḍ 'the child who was born (as my sibling) is still alive'; uṭyθ uṭ iṭ, pe·dθ fe·r̲p iṭ '[to leave behind] here the children who were born'; uṭyθ uṭ a·r̲s, pe·dθ fe·r̲p a·r̲s 'remembering the one who was born (as your sibling)'.

(3) In both the preceding types of repetition the repeated items have the same meaning. In the third type the repeated phonemic material does not have the same meaning.

Much of this repetition is of the alliterative type, in which the initial phoneme or a sequence of two or even more phonemes of one word in a song-unit is repeated in the corresponding word in its paired unit. There are many examples. In some there is no other repetition in the pair; e.g. ka·r̲e arkym, koṇ moṇy xïs (122.15-6) '[to pay] a vow of a silver leg-bangle—[to pay a vow], making an image of an eye' (k- repeated); pöṭa·r̲ ni·r, pa·r̲ṯ me·ṇ du·r̲ (190.11) 'water [runs] on the mountains—leafy branches [grow on] the dry tree' (p- repeated); pe·dïθ no·ṛ, poc en döw (very frequent) 'the sacred place where

one was born—the god of the father who begot one' (p- repeated); poˑn muˑt faṯy, poˑs̱m goṭ eṛs (12.42) '[a buffalo] sniffing the sky—switching knots in its tail' (poˑ- repeated); kïṛ tiˑ xoˑrym, wïs̱oɬ̣y xoṇk (92.21) 'the ritual of the small tiˑ -dairy—the ritual of the wïs̱oɬ̣y-dairy' (xo- repeated). In many more examples there is in the pair other repetition of the type presented in (1), i.e. repeated forms with the same meaning; e.g. ars aṭ muˑn, aˑn aṭ muˑn (very frequent) '[to turn] away the faces of the Europeans—[to turn] away the faces of the elephants' (a- repeated in the first words of the pair); koy aṛyos̱y, koṇ aṛyos̱y 'liberally, not knowing how many there are' (lit. not knowing [how many] hands, not knowing [how many] eyes; ko- repeated); moṇyïy ïd̲, moštïy ïd̲ (frequent) 'saying: "It is the bell"—saying: "It is the ax" ' (mo- repeated); pax uɬ̣ṣ föɬ̣k, mozu̯ɬ̣ṣ fiˑs̱ (very frequent) 'the lamp in the midst of the smoke—the sun in the midst of the cloud(s)' (f- repeated).

Similar repetition between units is found in other positions in the words, especially at the ends of words or of morphemes within words. This is usually repetition of consonants (even though in the initial position alliteration of vowels is found and has been exemplified above). Of the terms 'assonance' and 'rhyme' neither one is normally used for this type of repetition. No well-established term, in fact, is to be found, and perhaps 'assonance' will serve. Exx.: iṇe feˑj, moṇe feˑj (very frequent) 'quarrel(s) about women—quarrel(s) about land' (-ṇ- repeated); poˑθmil eˑṛ, kwïˑṭmil xoṛ (frequent) 'male buffalo [mounts] upon (the female's) hindquarters—[buffaloes bear] calf upon calf (lit. calf upon horn)' (-ṛ repeated); okye θarm, pökye θarm (38.18, 54.27) 'a gift of bedding—a gift of warmth' (-ky- repeated); öw xwïˑṛ ṇiˑrm, öw faṇ goˑrm (15.5) 'water in all the many (lit. seven) streams—new grass on all the many (lit. seven) mountains' (-rm repeated); siˑftk ïθad, oˑftk ïθad (frequent) 'sitting in (danger of one's) life—sitting in danger' (-ftk repeated); ïˑštyuˑ mox, muˑštyuˑ θeṛ (very frequent) 'twice [to marry] a wife—three times [to give] compensation (for stealing a wife)' (-štyuˑ repeated); arxoθad, tïrxoθad (very frequent) 'the uncontrollable—that which cannot be turned' (-rx- repeated at end of verb stems).

In spite of the impressive body of such alliteration and assonance that the index yields, it is not possible to produce figures showing that such repetition occurs in the pairs of units in a proportion greater than is to be expected in comparison with lack of such repetition (i.e. random combinations of phonemes). At this point in the presentation alliteration and assonance might be regarded as accidental, and any stress laid on them might be purely impressionistic. However, that there has been in the history of the technique intentional selection of forms to produce these sound-effects is clinched by the presence in the corpus of involuted alliterations and assonances. As soon as we find that each of numerous pairs of song-units shows more than one alliteration or assonance or a combination of several such effects, we can be sure that accident is ruled out and that these combinations were formed intentionally, and can argue back to intention in the material already described.

The combinations in the paired units include:

(a) two alliterations, very frequently: e.g. koṭyïθ föɬk, kar̲θïθ fep (very frequent) 'the lamp which they light—the buttermilk coagulant onto which they milk' (k- and f- repeated); twaṛmil fo·s̲, twïṭmil feṇ (frequent) 'milk [flows] upon the buffaloes' thighs—[to put] butter upon the handle of the milking vessel' (tw- and f- repeated); oṛke nu·, omge nwïd̲y (18.34) 'disease which they could not subdue—disease which could not be suppressed' (o- and n- repeated);

(b) two assonances, rare: e.g. pö·r̲ θas̲ xo·r, ar̲ θas̲ ni·r (frequent) 'new grass on the cliff—water on the flat rock' (-r̲ and -r repeated); peṭe moṛk, kaṭe θešk (very frequent) 'folds of cane—loops of Strobilanthes' (-ṭ and -k repeated);

(c) combination of alliteration and assonance, frequently; sometimes assonance occurs at the end of a pair of words followed by alliteration at the beginning of the next paired words, yielding repetition of a consonant cluster or of some other sequence of phonemes. Exx.: pürsïθ fi·s̲, pa·gyïθ ne·s̲ (213.16) 'the sun which has set—the shadow which has fallen' (p- and -s̲ repeated); ko·le o·ṭ, koṇe nwï·ṭ (very frequent) 'the dance with the feet—sights for the eyes' (k- and -ṭ repeated); wa·ṛ θüṭy a·s̲, paṛ θo·w foṛy (frequent) 'Toda house—big house for the crowd' (-ṛ θ- repeated); talïš fi·s̲, ko·lïš fïr̲y (frequent) 'the sun [is hot] on the head—dust [burns] on the feet' (-lïš f- repeated). Six pairs of units have both alliteration and assonance in the initial words; e.g. kar̲ nïs̲oθ, kor̲ xwïḷoθ (152.12) '(buffalo) which does not stand to be milked—(buffalo) which does not allow calf to drink' (k- and -r̲ repeated); ökm iṭ e·t, öṛm iṭ e·t (208.11, 211.14) 'taking up the reckoning—taking up the account' (ö- and -m repeated). Two examples contain repetition of three elements: ko·lï mu·n, po·ḷï mi·n (163b.2) 'the family [is] decreasing—a comet [is created as a portent]' (-o·lï m- and -n repeated); tüɬy fïθyof, tošt fo·lof (21.5) 'the buffalo Pïθyof, which is the pen gateposts—the buffalo Po·lof, which is the gatebars' (t-, f-, -of repeated).

In addition to this large body of material in which the two members of a pair of song-units show repetition, there are a very few examples in which the repetition of phonemes is linear within the song-unit. In one instance the two members of the pair show parallel alliteration, along with repetition of the type described in (1): no·ṛ o·ɬ ṇo·šky, si·my o·ɬ sig (133.47) 'shame before the people of all the places—shame before the people of the divisions of the Nilgiris' (n- in the first unit, s- in the second unit, and o·ɬ in both). In another instance assonance in the second unit is combined with alliteration between the two units and repetition of type (1): pe·ɬ ṇas̲ o·ɬ, pas̲ nas̲ o·ɬ (9.34) 'men with beautiful (gracefully curved) thumbs—men with beautiful teeth' (p- in both units, -as̲ repeated in the second unit, and nas̲ o·ɬ repeated in both units).

Combination of alliteration between two paired units is combined with repetitions of type (1) within the pair of units, as in: koy ar̲yos̲y, koṇ ar̲yos̲y,

and other examples above. There are also occurrences of alliteration in the pair with complex repetitions of type (2) within the paired sentences. One example is built up on the pair which ends the previous paragraph:

o·poṭy pe·ɬ ṇaṣ o·ɬ pe·ɬ xuḏsfïs/ a kalpïɬ paṣ naṣ o·ɬ o·ɬ xaṛsfïs// (9.34)
'At O·poṭy the men with beautiful (gracefully curved) thumbs have the thumbs curved gracefully./ At that Kalpïɬ the men with beautiful teeth, the men have laughed.'// The syntax of the verb in the first sentence is of the kind previously described, in which pe·ɬ 'thumb(s)' is the subject of verb kuḏy- (S^2 kuḏs-) 'to be curved', but the inflectional ending of kuḏsfïs refers to o·ɬ 'men'.

The following sentence, which contains paired structure within itself, has such forced meaning in the first unit that it seems clear that the repetition of sound is the point:

kïṛ naṣθad o·ḷeni ïḏ kuṛy neṣaṛ o·ḍïθ o·ɬ ïsa mox öwmodyfïn (241.16)
'The man who, saying: "I do not own small beautiful things (kïṛ naṣθ, i.e. buffalo calves)," owns buffalo Neṣaṛ, which is sheep (kuṛy)—the son of Jesus, Öwmody.' (The 1st and 3rd units have repetition of k, ṛ, n and ṣ.) (Cf. note 9.)

Numerous examples occur of repetition, normally alliterative, between the units of a sentence. Sometimes it may be doubted whether it is anything but accidental, as in:

pa·topad pïsxwïθïn/ pa·w waṣyad puṛtxwïθïn// (190.5)
'The waves of the river are beating./ The falls of the river are dashing down.'// Yet the initial p- in each of the four units making up two sentences seems too pat not to be intentional. In several examples this effect is achieved by use of a place name and a buffalo name which alliterate with one another. Paired sentences of this kind occur.

u·foɬy uɬṣ ïr uu·f ïr θuḍsfïs/ pïškwït uɬṣ ï fïčof ïr θuḍsfïs// (9.27)
'Inside the U·foɬy (place surrounded by trees where they make the buttermilk coagulant) the buffalo U·f, the buffalo goes round in circles./ Inside the Pïškwït (an open place in the thickets) the buffalo Pïčof, the buffalo goes round in circles.'// (Repetition of u·f- and u·f, and of pï- and fï-, p and f being morphophonemically related.)

In the material so far treated in this section, the repeated phonemes do not have the same meaning, since they do not form complete morphemes or words, but only the beginnings or ends of such complete forms.

In a fairly large number of examples, on the other hand, the repeated phonemes, which are an incomplete form in the first occurrence, are a complete form in the second occurrence, the meanings of the two occurrences not being related; occasionally there is reversal, with the complete form coming first. In most of the examples the repeated material belongs to two different units, usually in the same sentence, though occasionally paired units are involved. The first example has a triple repetition.

nïn ïr mi·ṛy peṣod mi·ṛy/ nïn goṛ mi·ṛy peṣ goṛ mi·ṛy/ / nïn daṭ e·t peṣ daṭ e·t/ (7a.41-2)

'Driving your buffalo, driving the buffalo Peṣod./ Driving your female calves, driving many female calves.// Taking your churning vessel, taking the most sacred churning vessel.'/ (Repetition of peṣ- in the buffalo name Peṣod, peṣ in the second occurrence being a word meaning 'many', peṣ in the third occurrence being an allomorph of peṣf, which is the word used at the most sacred dairies instead of taṭ 'churning vessel'.)

tofïngwï·ṛ tof ïḏfïs (9.18)

'The stream Tofïngwi·ṛ has been perfect.'

In one song (196) a peahen in the midst of a burning tract of grass prays for rain. In a series of unpaired sentences she tells the people to ask various gods to send rain. Some of the verses have repetitive effects of the present kind, the god being addressed by a sacred name and part of the name being repeated as a separate word.

po·ṣö· ušty po·ṣ maw o·y uṇ ïno·//(19)

'Say: "No·ṣ mund (po·ṣö·)! Appearing as a rain of milk (po·ṣ), rain!" '//

te·fax ušty töw maw o·y uṇ ïno·// (20)

'Say: "Pi·ṛ mund (te·fax)! Appearing as god's rain, rain!" ' // (te·- and töw 'god' are probably allomorphs of the same word, but the effect is essentially that which is being considered.)

na·ṣnïṣ ušty naṣ maw o·y uṇ ïno·// (23)

'Say: "Meḷga·ṣ mund (na·ṣnïṣ)! Appearing as beautiful (naṣ) rain, rain!" '// (na·ṣ- and naṣ are alliterative except for the vowel quantity.)

no·ṭiṣy ušty no·ṭk maw o·y uṇ ïno·// (24)

'Say: "Mt. No·ṭiṣy! Appearing as rain to the sacred places, rain!"// (no·ṭk 'to the sacred places'.)

ö·nṭöw ušty ö·n maw o·y uṇ ïno· // (25)

'Say: "Dairy Ö·nṭöw! Appearing as god Ö·n's rain, rain!" '// (The dairy is called 'god Ö·n', but the effect is essentially that which is being considered.)

mi·ṣo·n ušty mi·ṣ maw o·y uṇ ïno·// (26)

'Say: "Mt. Mi·ṣo·n! Appearing as rain for the peahen (mi·ṣ), rain!" '//

ko·xoṣy ušty ko·r maw o·y uṇ ïno·// (27)

'Say: "To·ro·ṛ mund (ko·xoṣy)! Appearing as rain for the new grass (ko·r), rain" '// (This is merely alliteration of ko·-.)

(4) In a small group of instances a repeated form has two different meanings, i.e. homonyms are involved, or at least different meanings of the same form in different contexts.

a·ṣ neṣof a·ṣ i· naṣθ/ ïr neṣof ïr i· naṣθ// (9.21)

'The house (called) Moonlight, how beautiful is the house!/ The buffalo (called) Moonlight, how beautiful is the buffalo!"// At the Ka·ṣ mund, one of the houses is named Neṣof 'moonlight'; this word is also a common buffalo name.

peṭ e· peṭ peṭθo·xum (185.1)

'Cane—which cane? (Cane from) Mt. Tö·xa·s̲.' In the mountain name peṭ is almost certainly 'mountain'; in the other unit peṭ is 'cane'.

o·r̲ moxad pocïθik/ o·r̲ foṭy foṇm pocïθik// (214.23)

'You begot many (lit. six) children./ You kept coins in many (lit. six) boxes.'// The verb poy- (S² poc-) has meanings 'to keep, place, put; to bear, beget'.

pïnaṭwï·k pocïθ ïr poc afk far pïḍθïṭsïn (99.6)

'The buffalo which he kept (pocïθ) for the funeral place Pi·c—to mother (lit. mother who bore [poc] children) the luck fell in spite of his intentions.'

po·ns̲ mi·na·ns̲a·, nelts̲ mi·na·ns̲a· (245.6)

'O ye stars in heaven!—O ye fish on earth!' (mi·n 'star' and 'fish'.)

köḍ ponya·, ni·ponya· (245.8)

'O hard frost!—O watery dew!' (pony is both 'dew' and 'frost'.) Since song 245 was composed by a Toda Christian and is only partly Toda in technique, these last two examples may be very original, but there is no certainty.

There are two examples in which a form, which in the immediate verbal context has one meaning, must in the nonimmediate verbal context have another meaning; these are puns.

mutïθ fu·j kwïṛtxwïθïn (150.21)

'They are giving temple-offering of pearls.' This is an adaptation of a riddle; in the context, which has to do with erotic dreams about women, the word mut 'pearl(s)' must be reinterpreted punningly as 'kiss(es)'.

kas̲ wïḏa·r̲ moḷ wïḏa·r̲ tïrčïpïk kïy iṭ fo· (ï)n (233.61)

'Say to him: "Act like separating stones and sand on one side (in winnowing grain)! Come!" ' This is said by myself inviting my interpreter to come to work with me. The verb tïrc- (S² tïrč-) means 'to separate (transitive); to translate'.[11] The song technique must contain the paired phrases having to do with winnowing (the first two [cf. note 9]; they do not recur in the corpus). In order to sing about translating, the composer says; 'do what is like winnowing (as a homonym), i.e. translate.' This is instructive for the insight that it may give into the development of the technique.

In the formation of the inventory of song-units and constructions, then, it is clear that sound effects became an important element and that frequently the selection of forms in the formation of units was determined by the sound effect that could be produced by the repetition of phonemes, morphemes, or forms. These elements, like all others, became formulas in the repertory.

Another type of figure of speech that is conspicuous in the repertory is the use of comparisons. This, a matter of meaning, involves the same added dimension as that just discussed and exemplified, viz. a selection of forms which in time became formulaic.

Occasionally the comparison is stated in a simile-like way, i.e. there is statement of the subject and the object of the comparison and of the tertium comparationis which the subject and the object have in common, and the comparison is indicated by a morpheme meaning 'like', most frequently the suffix -ïk. A very clear example is one already given:

pö↕ kopaṇ pöḷ deiṣyk o·ḍyïpïk o·ḍyïθik (95.16)
'You danced as the white moth dances at the lamp-niche.' This comparison is usually shorter by the omission of the second unit 'at the lamp-niche', and the object of the comparison is then probably merely a fluttering white butterfly in the daytime.

A more metaphor-like type involves equation of the subject with the object of the comparison, and frequently there is no specific statement of the tertium —or what looks like a tertium, e.g. a verb, refers literally to the object of the comparison and only in a transferred ('metaphorical') way to the subject of the comparison. In these comparisons the verb o·x- (S² o·y-) 'to become' often appears, but -ïk 'like' does not. An example has already appeared:

ïṛy o·yad ïṛcïθik/ mic o·yad miǩïθik// (51b.36)
'You thundered, becoming thunder./ You lightened, becoming lightning.'// This is a metaphor of a man's vigorous activity, whether at funerals or in clan affairs generally. Neither verb can be applied to a person otherwise than 'metaphorically'. In a slightly differently phrased pair this figure is used of the equally vigorous activities or the equal importance of two persons, usually brothers; e.g.:

ïṛy wïḏ o·↕ ïṛcïθuk/ mic wïḏ o·↕ miǩïθuk// (179.23)
'One of us thundered like thunder./ One of us lightened like lightning.'// The literal construction is: thunder one person we-thundered/lightning one person we-lightened.//

A pair of metaphors frequently employed of an old person or person approaching death is the following:

kofoyš fi·ṣ e·fïnen/ po·r(g) gwï·ṭṣ fum po·ṣtfïnen// (170.13, etc.)
'I have become like the sun (settling) on the hilltops./ I have become like (a tree) yielding ripe fruit on the high branches.'// Both sentences have syntax of the poetical type previously described: on-the-hilltop(s) sun to-have-become-I/ [a tree] high branch(es)-on ripe-fruit to-have-yielded-I//. The relationship of the subject 'I' to the activity of the sun and the tree can only be 'metaphorical'. In other contexts this first pair of units is used with no further construction in an equation with 'old man'. In 86.43 the units occur in vocative form:

po·r(g) gwï·ṭṣ fumya·/ kofoy fi·yṣa·//
which are very literally: 'O ripe fruit on the high branches! O sun on the hilltops!' but can only be interpreted through the metaphorical use in the longer sentences. In 131.32 these phrases are given dative suffixes:

kofoy fi·ṣk nwï·ṭyfïnen/ po·r(g) gwï·ṭṣ fumk nwï·ṭyfïnen//
'I have looked at the sun on the hilltops, etc.', i.e. 'I have looked at the old man'.

In very many contexts husband and wife or lover and mistress are referred to by the pair: kwï·giǩ θwï·ṛ, kwï·ṭ ïr θwï·ṛ 'a pair of dolls—a pair of toy buffaloes'. Beauty is the tertium, but is never explicit in the comparison.

Few other figures of speech of a formal nature have been identified. One

seems to be a playful antithesis or contradiction (called by the Sanskrit poeticians *virodha* 'negation'):

pi·s̲ o kwï·ṣ nö·r̲ o kwï·ṣ ko·sïθik . . .tïgïḷ (242.16)

'You have shone like the sun (pi·s̲) on one side, like the sun (nö·r̲) on the other. . . Tïgïḷ!' The woman's name Tïgïḷ means 'moon'—the contradiction between sun and moon is obvious. (For the pair in the first two units, see note 9.)

Other figures occur, less formal in structure. Exaggeration, alias hyperbole, is frequent and of various subtypes. The qualities of commonplace objects may be overstated—for example, when they are described as silver or gold, as in the common formula: pïne bo·θ, piṯye θüṭ 'golden ridgepole—silver thatch-binding'. Impossible perfections may be ascribed:

kwar faṭoθ o·ḍïθik/ öṣk faṭoθ pu·tïθik// (56.22, etc.)

'You owned buffaloes which did not become muddy./ You wore a cloak which did not become dirty.'//

Numerical exaggerations are frequent: e.g. o·r̲ moxad 'six children', o·r̲ oṇtafn 'six brothers', öwfo no·x 'seventy female buffalo calves between two and three years old', öw fe·s̲y ïr 'buffaloes filling seven pens'. These are all stereotyped phrases for 'many', and might be regarded as nothing more than figures of speech. However, they are typical of one phase of the general semantic characteristics of the songs.

The formulas of the inventory in great part show a close semantic fit with that which is signified. Over the period of the formation of the technique, formulas were provided for the traits and subtraits of Toda culture.[12] Thus, at a funeral certain complicated but standardized procedures are followed, and each of the important steps of the procedure is provided with a formula for use in the songs; the formulas are paired and fitted into formulaic constructions. When, as between moieties and clans, but otherwise rarely, there are procedural options, there are usually corresponding options in the formulas. Similarly for all other systems and subsystems of the culture. But there are parts of the cultural system, events within it, which are not standardized; examples are the number of children in a family, or the number of buffaloes or coins owned by a man, or the number of times he serves as a dairy-priest. The formulaic character of the song technique has not been enlarged to such an extent that all of the nonstandardized possibilities of this kind have been provided for. The numerical formulas provided are restricted and only approximate. If there is often exaggeration, it is essentially produced by the further factor of benedictory statement ('may you have. . .!'). But exaggeration is not always present; there is frequently merely inexactness, produced by the technique's unconcern with exact statement about many of the social details. Whether a man had two brothers or eight the formula 'six brothers' is near enough, even if usually an exaggeration, and is the only one provided.

The song inventory, then, was evolved to match the tribal structure in

general terms. The extent of detail of the technique is greater for some of the cultural substructures than for others, presumably at the points of greatest interest. The song technique is not intended to deal with individual cases in individual terms, but to comment about each case in terms of the generalized social structure of the tribe. Symptomatic of this basic characteristic is the failure in most of the songs to identify persons by name. The formulas provide means to identify a person by clan-membership or even, more closely, by the Toda hamlet (mund) where he usually lives, but individual identification by name is rare. One of my informants even claimed that when he used a proper name in songs, he was innovating in the technique.[13] Whether he was or was not (and it is impossible to be sure), his claim sheds light on the feature of the songs that is under consideration at this point.

The semantic orientation of the songs is very different from what is often considered to be the primary purpose of speech. The songs are not instruments of information, but of comment, socially directed or individually emotional; for the formulas provide for such emotional statement, even though standardized, concerning EGO and his relations with other individuals at certain points in the social structure, his parents, his siblings, his children, his spouse, his beloved, his friends, and so on. Prose, no doubt, can and does say the same things. But the semantic essence of Toda songs is that the comments that are made are made in a highly formulaic, and consequently restricted, way. On the occasion of an event information may be given and comment made in prose, but the socially directed, traditionally directed comment is made in song.

We may go further than this. We have identified the semantic sphere of the songs as that of comment, but have also said that prose comment can be and is uttered on the same events. Wherein lies the difference? It lies of course in the linguistic dimensions that differentiate song from prose. Formally these have been identified at various levels, from that of voice production, through morphophonemics, morphology and syntax, to selection of forms, the latter being the basic factor in the complex formulaic structure of the song language. These differentiating formal features taken as a whole are the basis of a semantic differentiation, another semantic dimension. It has already been said that the formulas of the songs are related closely to social traits. They are semantically counterparts of the social structure, and not free comment. But this semantic characteristic is on a lower level than the semantic totality that corresponds to the totality of formal differentiation of song from prose. This semantic totality can be identified as the esthetic signification of the songs. The composer's and the hearers' emotion, whether sorrow because of a death, pleasure because of a love affair, religiosity at a religious ceremony, social approval or disapproval because of some event, has an added dimension because of the formal characteristics of song. That it has is clear enough from the physical reactions, the 'response', of both parties to the song rendition. What the relations are between the various strands in

this emotional response may probably be left to the psychologist. But we can and should be able to provide a construct based on the linguistic characteristics of the songs as differentiated from prose. If this looks towards a generalization that will fit all verbal esthetic situations, so much the better.

Appendix

There is a very curious corollary of the paired usage of the song-units. As described in section 1 on repetition, many of the pairs contain synonyms for an object or trait of the culture, but many others are composed not of synonyms, but of terms for two closely related entities. Frequently in the individual case, only one of the paired related entities is in point. The technique, however, requires that both members of the pair be sung. The meaning of the irrelevant member of the pair is then not informational, nor even comment on the situation. At times it may be thought metaphorical, but there are many instances where this is impossible. Then it must be said that there is esthetic value (or meaning) merely in the paired, formulaic occurrence of the song-unit, whether relevant or irrelevant.

As an outsider, I found this so disturbing in its introduction of informational irrelevancies that I was long in accepting it for what it was. The technique actually requires it, and there are very frequent examples. On one occasion only did a composer in dictating say that the irrelevant member of a pair should be omitted, but even then he said that it should be replaced by a half-verse composed of nothing but *la-la-la's*, i.e. by the paired sentence in blank (35.15).

A few examples only need be given, ending with two that show how the meaning and bearing of song-units may be lost through this feature of the technique.

The child on the lap and the calf in the calfpen are paired: moṛyïš mox, kaṛïṣ xoṛ. In two passages (186.8, 220.14), both descriptive of morning, both are relevant; in four passages (3a.39, 36.54, 46.37, 66.26) a person laments his helplessness by metaphorically saying that he has become a child in the lap, a calf in the calfpen; in four passages (73.3, 172.35, 183.3, 197.2) a child is addressed with both formulas in the vocative: moṛyïš moxya·/ kaṛïṣ xoṛya·//, and the calf is irrelevant.

The tiger and the Kurumba sorcerer are referred to in a pair: öw twa·ṣ füṣy, öw muṭṣ xurb 'the tigers in many (lit. seven) jungles—the Kurumbas in many (lit. seven) villages'. When it is a question of a tiger killing a man, as in 82a.11, the Kurumba reference is irrelevant (unless it is thought to be metaphorical); when all the inhabitants of the Nilgiris are summoned in several verses including one based on this pair, the tigers are irrelevant (46.30).

The pair: iṇe fe·j, moṇe fe·j, refers to 'quarrel(s) about a woman—quarrel(s) about land'. Only the first is relevant in passages about the abduc-

tion of a woman and the subsequent settlement of a fine (50.6, 133.5, 137.5, 175.25). In numerous passages the reference is to a powerful man who settles disputes, and in these both members of the pair are to the point.

Relationship terms frequently occur in reciprocal pairs, e.g. elder brother: younger sibling, elder sister: younger sibling. If one member of such a pair laments the death of the other, generally both terms are used and one is irrelevant. Thus, song 60, a lament of a younger brother for an elder brother, starts with: en boc oṇa·/ enwïṛ fedya·// 'O my elder brother!/ O my younger sibling!'//. The use of one of these pairs is relevant only when two persons so related are singing together.

Some ritual details are combined in pairs in such a way that in some contexts one member of the pair is ritually impossible. The burning place for the corpse at the first funeral is paired with the burning place for the relics at the second funeral. In song 44b (vs. 13, 22) only the latter is in point in referring to the second funeral, in song 79 only the former in referring to the first funeral.

In the formulas about the ritual of the rebuilding of dairies, one pair is: kwaxïš fi·ɬ, muṛyïš xaṣ '[to fix] the upright sticks at the end of the ridgepole (to hold the thatch)—[to place] the stone on the summit of the conical po·w-dairy'. Most dairies are of the same shape as the houses and have a ridgepole; in rebuilding those of the lowest grade (the to·r̲ foɬy) a man of the clan that owns the dairy can perform this last, symbolic action in the rebuilding. The most commonly mentioned po·w-dairy of the conical shape is that of the No·ṣ clan. It is of the wïṣoɬy grade, and priests of dairies of this grade must come from the Tŏwfiɬy moiety or from the Meḷga·ṣ clan of the To·r̲θaṣ moiety; no other member of the Tö·r̲θaṣ moiety, including the No·ṣ clan itself, can serve as wïṣoɬy priest and consequently put the stone on the top of the No·ṣ conical dairy. Therefore, when the pair just quoted is used of a man of the No·ṣ clan (as in 51b.31) or of a man of the Ka·ṣ clan of the To·r̲θaṣ moiety (as in 80.10), only the first unit of the pair is in point.

One pair proved difficult of interpretation: öw xoce·ry, öw xopol. It is used of the government administrative offices in Ootacamund. Originally only the first member, 'many (lit. seven) lawcourts', was relevant in this context. The other, 'many (lit. seven) boats', referred to boats on the dammed lake in the town; these, and at one period regattas, were a wondrous sight in Ootacamund. Since the lake after some decades silted and became too shallow for boats, the second member of the pair has become meaningless, and it was essentially uninterpretable for my informants.[14]

Finally, one pair may be given in which the second member has become (for me, at least) quite irrelevant in all contexts: a·ne fïl, kyu·ne fïl '[to give] the price of an elephant—[to give] the price of a mushroom'. The pair refers to large sums of money given for buffaloes, for a wife, or in bribes. Whatever the context in which the second member was relevant (?an anecdote about a

stupid noodle), it was not known to my informants and I have been unable to recover it.

NOTES

*This paper was read in shorter form at the Linguistic Institute, Ann Arbor, 8 July 1965, and benefited from the discussion there.

1. 'The songs of the Todas', *Proceedings of the American Philosophical Society* 77.543-60 (1937); 'Oral poets of South India—the Todas', *Journal of American Folklore* 71.312-24 (1958); also *Traditional India: structure and change* [ed. Milton Singer] 106-18 [Philadelphia, 1959]; reprinted in *Language in culture and society* [ed. Dell Hymes] 330-40 [New York, 1964]). One other relevant article, on the language, is 'Toda, a Dravidian language', *Transactions of the Philological Society* 1957.15-66. References to the projected publication of the songs [*Toda Songs* (Oxford, 1971)], verbal texts only, since the music was not recorded in any way, are by the numbers of the songs and the couplets, or verses, within the songs (e.g. 78.30, i.e. song 78, couplet or verse 30). The chief authority on the Todas remains W. H. R. Rivers, *The Todas* (London, 1906). The field work which is the basis of my analysis was done at intervals in a three-year period from 1935 to 1938.

2. They only partly duplicate the statements of the 1937 article.

3. A complete description of all Toda utterances would identify at least one more special type of voice production, that used by dairy-priests in ritual utterances; I am assuming that there is only one such used by them. The shamans, when performing, also have a special type of voice-production, but with hardly an exception they purport to be speaking another language, Malayalam, which is that of the various gods who possess them. Rivers (251) reported a shaman who was possessed by a Toda divinity and spoke in Toda. Presumably his voice production would have been similar to that of the shamans who speak Malayalam during possession. In my time in the field there were no shamans who spoke Toda while possessed.

4. Many of the four-syllable units end with the vocative suffix -a· or -ya· as the 4th syllable; e.g. ï neṣofya· 'O buffalo Neṣof!', aṛyin gu·xya· 'I do not know, O wife!' Others need not be analyzed here.

5. An em space within a sentence, or in a literal translation, indicates the end of a song-unit. [In the printing of this chapter the em spaces have been neglected but can usually be restored by counting syllables (N.B. y is not a vowel and not tc be ccunted as a syllable). Occasionally a song-unit is shorter or longer than three syllables by one syllable; this can usually be determined by counting from the end or by matching pairs of units. If it is desired to see any particular passage printed the em spaces, it is to be found in the original publication of this article in *Language* or in the 1971 volume *Toda Songs*.]

6. /n/ does not have an allophone ŋ before /g/.

7. As in Kota; cf. *Kota texts, part one* 21 (*UCPL* 2; 1944).

8. If numerous examples have been given, it is because this type of construction is so unusual (or perhaps rarely reported) in inflected languages. Moreover, if one should look for archaic traits in Toda song language, this has as good a chance as any of being one, since it is apparently paralleled in Old Tamil, but not in Modern Tamil.

9. The exceptions include:

(1) unpaired sentences:

(a) those whose key units have no paired units; there are occasional sets of three such sentences, which might well be interpreted as triplets rather than sets of three unpaired sentences;

(b) those whose key units have paired units which are exceptionally omitted in these passages; the passages are usually sequences (running at times to 10 or 12 or more sentences) in which secondary key units seem to dictate the failure of the pairs to occur; the peahen's song (196) has a sequence of this kind, from which several examples are given at the end of section 3 below;

(2) sentences which within the one syntactic unit contain paired song-units. In section 2b below, one of the examples of redundancy is constructed in this way, the sentence beginning: ke·noẓfin (230.27). Similarly, in section 3, the sentence beginning: kïṛ naṣθad (241.16); in section 4, the sentence beginning ka_ wïḍa·ṛ (233.61); in the section on figures of speech based on meaning, the sentence beginning pi·ṣ_ o kwï·ṣ (242.16).

Many of the examples given in the text of the article are single sentences, which in the texts occur as members of pairs; this needs no further remark. The parallel sentences are indicated by the punctuation symbols / and //, beginning in section 1 below.

10. 'Toda dream songs', *JAOS* 85.39-44 (1965).

11. Treated in Burrow and Emeneau, *A Dravidian Etymological Dictionary*, as from two distinct groups of etyma, 2655 and 2815. The 'translate' meaning is a borrowing from Tamil tiri (S² tiritt-).

12. For a discussion of this matter in less linguistic terms, see my 1958 paper.

13. The 1958 paper 321 f.

14. See *JAOS* 83.188-93, esp. 192-3 (1963).

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72	04 from bottom	<	>
106	21 from bottom	stans	stems
200	10 from top	'a real'	'areal'
201	19 from bottom	it is leads	it leads
218	16 from top	$r^{*}<\underline{r}$	$r<{}^{*}\underline{r}$
218	18 from top	*r-k/t<k/t*	*r-k/t>k/t*
219	18 from top	firal	final
224	6 from bottom	$\bar{V}$—$\breve{V}$	$\bar{V}>\breve{V}$
233	6/7 from top	-k- -p- :uspa-? :uhka- uh-p-	-p- -k- :uspa-? :uhka- uh-p-
263	1 from bottom	**JOAS*	**JAOS*
268	TABLE 1 ITEM 10	Co-mmayyë	Co·mayyë
269	TABLE 2 ITEM 15	Skt. Mahādeva >Ma·de·vī	Skt. Mahādeva >Ma·de·vī
269	TABLE 2 ITEM 16	Ka·l̤ayyë	Ka·l̤ayyë
271	12 from bottom	*peru may	*perumay
272	7 from top	ba·va	ba·vë
293	12 from top	pe·n̤is	pe·n̤ïs
297	9 from top	pïnïyi.	pïnïyi,
299	17 from bottom	how	now
301	9 from bottom	origid of *-s-*	origin of *-s-*
301	9 from bottom	'to be'.	'to be',
302	4 from bottom	(—*kar-),	(<*kar-),
304	1 from bottom	This article is a revised version of *JAOS*,	**JAOS*, 100.311-12 (1980).
305	8 from top	mōlh	mōl̲h
322	15 from top	epithert	epithet
366	16 from bottom	*kedu̥nk*^{e}	*keduṅkė*
366	17 from bottom	(*r̲>d̲)	(*r̲>d̲)
385	17 from bottom	*tāl̤-*	*tāl-*

407	14 from bottom	Ko s̲ol	Ko s̲o l̤
425	19 from bottom	Tö·k s̲iy	Tö·kisy
425	7 from bottom	wïṣo l̤̲yk	wiso l̤yk
426	9 from top	na·s̲yï0	na·s̲yïθ
442	7 from bottom	ka s̲ i.	ka s̲ i·
443	3 from bottom	pa r̲ t̤	pa r̲ t̤
447	11 from bottom	To·ro·ṛ	To·r̲o·ṛ
449	11 from bottom	fi·ysa·	fi·s̲ya·
454	13 from bottom	printed the	printed with the
455	9 from top	ka̲ wïd̲a·r̲	kas̲ wïd̲a·r̲

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